GETTING TO K(NO)W

Annual Report | 2007-2008

E C O

Environmental
Commissioner
of Ontario

C E O

One-half the troubles of this life can be traced to saying *yes* too quickly and not saying *no* soon enough.

— Josh Billings (1818 - 1885)

Environmental
Commissioner
of Ontario

Commissaire à
l'environnement
de l'Ontario

Gord Miller, B.Sc., M.Sc.
Commissioner

Gord Miller, B.Sc., M.Sc.
Commissaire

October 2008

The Honourable Steve Peters
Speaker of the Legislative Assembly of Ontario
Room 180, Legislative Building
Legislative Assembly
Province of Ontario
Queen's Park

Dear Speaker:

In accordance with Section 58 of the *Environmental Bill of Rights, 1993*, I am pleased to present the 2007-2008 Annual Report of the Environmental Commissioner of Ontario for your submission to the Legislative Assembly of Ontario.

Sincerely,

G Miller

Gord Miller
Environmental Commissioner of Ontario

1075 Bay Street, Suite 605
Toronto, Ontario M5S 2B1
Tel: (416) 325-3377
Fax: (416) 325-3370
1-800-701-6454

1075, rue Bay, bureau 605
Toronto (Ontario) M5S 2B1
Tél: (416) 325-3377
Téléc: (416) 325-3370
1-800-701-6454

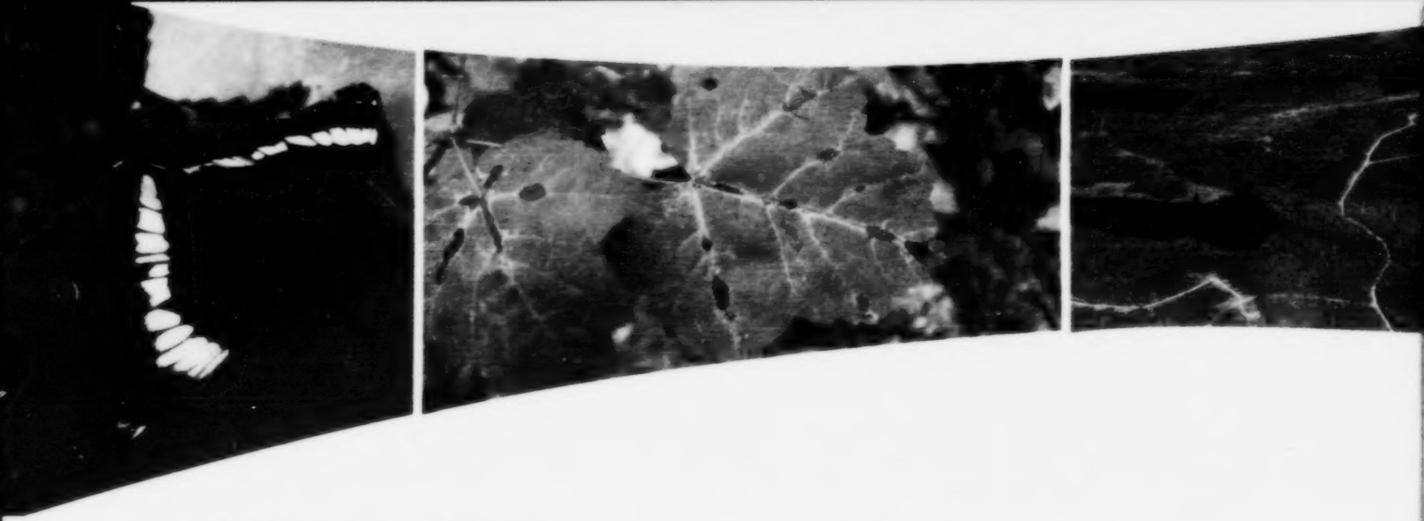


Table of Contents

Commissioner's Message: Getting to K(no)w 4

Part 1 – The *Environmental Bill of Rights* 7

1.1 The ECO Recognition Award 10
1.2 Education 11

Part 2 – Significant Issues 13

2.1 Ontario's Action Plan on Climate Change: Deserving of Credit? 13
2.2 Environmental Assessment: A Vision Lost 28
2.3 Drought in Ontario? Groundwater and Surface Water Impacts and Response 49
2.4 Air Quality Monitoring and Reporting in Ontario – Fostering a False Sense of Security 57
2.5 The Greening of the Ontario Government 62
2.6 Protected Areas Planning: Managing for Ecological Integrity? 68
2.7 Doing Less with Less: Rebuilding MOE and MNR – A Glimmer of Hope 74
2.8 Biodiversity in Crisis 76
2.9 Land Acquisition Program Update 82

Part 3 – Ministry Environmental Decisions 87

3.1 Canada – Ontario Agreement Respecting the Great Lakes Basin Ecosystem 87
3.2 MOE's Financial Plans Regulation for Municipal Drinking Water Systems 90
3.3 The Water Taking Charge Regulation 94
3.4 Environmental Penalty Regulations 98
3.5 Amendments to Regulation 903, R.R.O. 1990 (Wells Regulation) 103
3.6 Fisheries Protocols Undermined by Crippling Cutbacks 106

3.7 Legislative Brownfield Reform 111
3.8 Developing an Odour Policy Framework 115
3.9 Burning of Used Oil in Space Heaters is Banned in Southern Ontario 118
3.10 Municipal Hazardous or Special Waste (MHSW) Program Plan 121
3.11 Ministry of Transportation Environmental Standards Project 124
3.12 *Regulatory Modernization Act, 2007* 128

Part 4 – Applications for Review and Investigation 133
4.1 Permitting Water Takings by Commercial Water Bottlers 134
4.2 Land Use Planning and Protecting Groundwater Resources 138
4.3 Dofasco KOBM Meltshop 142
4.4 Reforming the *Mining Act* 147
4.5 Other Applications of Interest 149

Part 5 – The Environmental Registry 152
5.1 Quality of Information 152
5.2 Unposted Decisions 156
5.3 Information Notices 159
5.4 Exception Notices 161
5.5 Late Decision Notices and Undecided Proposals 162

Part 6 – Ministry Progress 165
6.1 Keeping the *EBR* in Sync with New Laws and Government Initiatives 165
6.2 Progress Report on Statements of Environmental Values (SEVs) 172
6.3 Ministry Responses to Past ECO Recommendations 173
6.4 Cooperation from Ontario Ministries 181

Part 7 – Appeals, Whistleblowers and Lawsuits 184

Part 8 – Developing Issues 192
8.1 Roads – Pathways for Humans, Barriers for Functioning Ecosystems 192
8.2 Wildlife Management: Ontario's Mammalian Predators 198

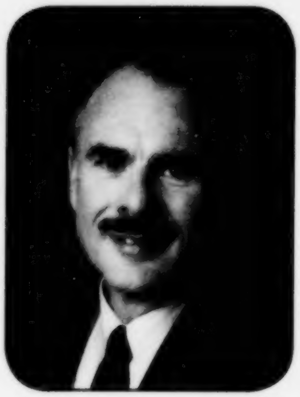
Part 9 – Financial Statement 207

2007/08 Recommendations 210

Ministry Comments 213

Index 224

Commissioner's Message: Getting to K(no)w



Twenty-five years ago, when I first started working in pollution abatement for the Ontario Ministry of the Environment, my colleagues and I – the technical experts and bureaucrats of the ministry – made all the decisions about what were acceptable environmental protection procedures and what amount of pollution should be allowed to be discharged into the environment. Ministry staff made these decisions by themselves, behind the closed doors of their offices, without bothering either to let the public know what was happening or to ask their opinion on what should be done. Now don't get me wrong. To a very great extent, the decisions made turned out to be correct, responsible and in the public interest. The point is: nobody asked, because nobody thought the public needed to know. The ministry and its expert staff, including me at that time, thought it was our job alone to protect the environment.

But that's not the right way to do things and, eventually, everyone realized it. The public has to be involved because the decisions being made during the processing of various environmental and planning approvals have profound implications for our land, our water and our ecosystems, all part of the natural heritage that the public owns and upon which the economy and our quality of life depend. Further, the consequences of these types of decisions often extend far into the future, with important implications for generations yet to come.

There was an interesting exception to the general approach of making decisions in private. The *Environmental Assessment Act* was passed in 1976 and it required a lot of public involvement and consultation. But, the Act only applied to a limited number of public sector projects; the thousands of environmental decisions and approvals made throughout the years relating to private sector activity were explicitly exempted from its purview. Nonetheless, it was visionary legislation, and well ahead of its time. Unfortunately, as we discuss in this report, that vision may have become muddled, if not lost entirely, in the more than 30 years since the passage of the *Environmental Assessment Act*.

Support for meaningful public consultation on environmental decisions increased gradually through the 1980s and early 1990s. With the passage of the *Environmental Bill of Rights, 1993*, the right to transparency in government decision-making relating to the environment was crystallized into law.

Today, it is generally recognized that public consultation in environmental decision making is important and necessary. But is Ontario conducting successful consultations? There seems to be a lot of public dissatisfaction with the nature of the current consultation opportunities offered during environmental approval processes. Recent proposals for quarries, landfills, and various energy projects provide illuminating examples of a growing public frustration with approvals processes. So, what is Ontario doing right, and where has it gone wrong? Is there a better model for proper public consultation?

The concept of meaningful consultation is clearly evolving in our society, and there is a lot of uncertainty and confusion about what needs to be done. Most interestingly, that evolution is not being driven by internal efforts to improve Ontario's frustrating environmental approvals mechanisms, but by the initiatives of aboriginal peoples in the courts. Perhaps it is too early to define what full and meaningful consultation involves, but a couple of aspects are becoming clear.

First, consultation is not simply telling people what you intend to do and, then, listening to their comments. Consultation begins with engaging all the parties that have an interest in the proposed project and determining to what degree they understand what the project is, the full range of its potential impacts and how it may be important to them. If the audience doesn't understand the nature and complexities of the project and/or how it may impact their interests, however subtly, then meaningful consultation can't occur. In such a situation, it is necessary to step back and first help to educate the impacted constituencies and build their capacity to fully participate in and comprehend the decision that is being made. The parties have to get to a position where they all know the full implications of a proposal before a meaningful dialogue can occur.

The second crucial aspect of public consultation relates to the perceived sincerity of that dialogue. There have been many occasions where affected people have dedicated tremendous time and effort to the consultation process, in the sincere belief that their rational arguments could change or stop the proposed undertaking, only to have their expectations dashed when the project was approved unchanged. Despite all their work – participating in a process that will hear, but still ignore, their arguments – they discover that it can be impossible to get to a "No" outcome. This is very damaging to the credibility of environmental approval processes. It alienates the people in society who can speak for the integrity of our decision making systems. It encourages those who reject participatory processes and endorse less constructive and more costly strategies, such as litigation or civil disobedience, as a mechanism of public decision making.

To be legitimate, an approval process must be able to reach a decision not to proceed. I'm not saying that this should be a common outcome. Quite the contrary, one would expect that the vast majority of proposed undertakings would be well-designed and well-considered, even before they reach the public consultation stage, so as to be likely candidates for approval. But, in a valid and meaningful consultation process, we would expect that sometimes rational arguments or contrasting societal value systems would and should lead to a "No". Without that possibility, there is no value in consultation.

Gord Miller
Environmental Commissioner of Ontario

part one

the environmental bill of rights

The *Environmental Bill of Rights*

The *Environmental Bill of Rights* (*EBR*) gives the people of Ontario the right to participate in decisions that affect the environment made by ministries prescribed under the Act. The *EBR* helps to make ministries accountable for their environmental decisions, and ensures that these decisions are made in accordance with the goal all Ontarians hold in common — to protect, conserve, and restore the natural environment for present and future generations. The provincial government has the primary responsibility for achieving this goal, but the *EBR* provides the people of Ontario with the means to ensure it is achieved in a timely, effective, open and fair manner.

The *EBR* gives Ontarians the right to . . .

- comment on environmentally significant ministry proposals;
- ask a ministry to review a policy, Act, regulation or instrument;
- ask a ministry to investigate alleged harm to the environment;
- appeal certain ministry decisions; and
- take court action to prevent environmental harm.

Statements of Environmental Values

Each of the ministries subject to the *EBR* has prepared a Statement of Environmental Values (SEV). The SEV guides the minister and ministry staff when they make decisions that might affect the environment.

Each SEV should explain how the ministry will consider the environment when it makes an environmentally significant decision, and how environmental values will be integrated with social, economic and scientific considerations. Each minister makes commitments in the ministry's SEV that are specific to the work of that particular ministry.

The Environmental Commissioner and the ECO Annual Report

The Environmental Commissioner of Ontario (ECO) is an independent officer of the Legislative Assembly and is appointed for a five-year term. The Commissioner reports annually to the Legislative Assembly – not to the governing party or to provincial ministries.

In the Annual Report to the Ontario Legislature, the Environmental Commissioner reviews and reports on the government's compliance with the *EBR*. The ECO and staff carefully review how ministers exercised discretion and carried out their responsibilities during the year in relation to the *EBR*, and whether ministry staff complied with the procedural and technical requirements of the law. The actions and decisions of provincial ministers are monitored to see whether they are consistent with the ministries' Statements of Environmental Values (see Part 6.2)

The ECO's Annual Report for 2007-2008 is divided into nine parts:

Part 1, **Introduction** – the ECO describes the basic requirements of the *EBR* and the contents of the Annual Report and the Supplement to the report.

Part 2, **Significant Issues** – the ECO highlights a number of important issues that have been the subject of recent applications under the *EBR* or are related to recent decisions posted on the Environmental Registry.

Part 3, **Ministry Environmental Decisions** – the ECO assesses how ministries used public input to draft new environmental Acts, regulations and policies

Part 4, **Applications for Review and Investigation** – the ECO reviews how ministries investigate alleged violations of Ontario's environmental laws, and whether applications from the public requesting ministry action on environmental matters were handled appropriately.

Part 5, **The Environmental Registry** – the ECO reviews the use of the Environmental Registry by prescribed ministries, evaluates the quality of the information ministries post on the Registry, and assesses whether the public's participation rights under the *EBR* have been respected.

Part 6, **Ministry Progress** – the ECO follows up on the progress made by prescribed ministries in implementing recommendations made in previous annual reports.

Part 7, **Appeals, Lawsuits and Whistleblowers** – the ECO reviews appeals and court actions under the *EBR*, as well as the use of *EBR* procedures to protect employees who experience reprisals for "whistleblowing."

Part 8, Developing Issues – the ECO reviews two developing issues: the growing ecological problems caused by highways and roads and the inadequacies of Ontario's current approach to managing mammalian predators.

Part 9, Financial Statement — in compliance with the reporting requirements of the Office of the Assembly under the *Legislative Assembly Act* for the year ending March 31, 2008, as audited by the Office of the Auditor General of Ontario.

In addition, a series of appendices present a summary of the 2007/2008 ECO recommendations (cross-referenced to the relevant sections in this report), a synopsis of ministry comments on this report, an index and the ECO staff list for 2007/2008. A glossary of key terms is available on the ECO website at www.eco.on.ca. Finally, a Supplement to the report provides further detail on the *EBR* activity during the reporting period.

The Environmental Registry

The Environmental Registry is the primary mechanism for the public participation provisions of the Environmental Bill of Rights. The Registry is an Internet site where ministries are required to post notices of environmentally significant proposals. The public has the right to comment on the proposals before decisions are made, and ministries must consider these comments when they make their final decisions and explain how the comments affected their decisions. For complete information on the Environmental Registry and the ECO's evaluation of its use by the prescribed ministries, see Part 5.

The Registry can be accessed at: ***www.ebr.gov.on.ca***

Ministries Prescribed Under the *EBR**

- Agriculture, Food and Rural Affairs (OMAFRA)
- Culture (MCL)
- Economic Development and Trade (MEDT)
- Energy (ENG)
- Environment (MOE)
- Government and Consumer Services (MGCS)*
- Health and Long-Term Care (MOHLTC)
- Labour (MOL)
- Municipal Affairs and Housing (MMAH)
- Natural Resources (MNR)
- Northern Development and Mines (MNDM)

- Tourism (TOUR)
- Transportation (MTO)

* In late June 2008, the Ontario government announced Cabinet changes affecting ministries prescribed under the *EBR*. The Ministry of Energy was merged with the Ministry of Public Infrastructure Renewal (PIR) to create the new Ministry of Energy and Infrastructure. The Consumer Services portfolio (including oversight of the Technical Standards and Safety Authority) was transferred from the Ministry of Government and Consumer Services to the Ministry of Small Business and Consumer Services. The title of the former ministry has reverted to the Ministry of Government Services. For the sake of clarity, this Annual Report uses the ministry names and abbreviations that applied during the 2007/2008 reporting period (PIR, ENG and MGCS).

1.1 – The ECO Recognition Award

Each year, the Environmental Commissioner of Ontario invites ministries to submit programs and projects for special recognition. The ECO's Recognition Award is intended to acknowledge those ministries that best meet the goals of the *Environmental Bill of Rights* or that use the best internal *EBR* practices. This past year, six ministries responded to our call for nominations, submitting a total of 13 projects for consideration.

An arm's-length panel reviewed the list of submissions.

This year's ECO Recognition Award is being presented to staff of the Ministry of Tourism for their "Zero Waste Events" at the Metro Toronto Convention Centre. To date, 14 such events have taken place with an average waste diversion rate of 97 per cent. This remarkable waste diversion rate saves, on average, the equivalent of 57 trees, 75,000 litres of water, 39,310 kWh of energy, 16,200 litres of oil, 77 kg of air pollutants, and 85 cubic metres of landfill space. The ECO applauds the efforts of the Ministry of Tourism on this project and sincerely hopes that it serves as an inspiration to others.

Honourable mention is being given to another initiative of the Ministry of Tourism. The ministry's Frontenac Arch Biosphere Reserve - 1000 Islands project merits recognition for the ongoing efforts that have gone into promoting environmental protection, sustainable development, and cultural awareness in partnership with a broad array of stakeholders. The United Nations Economic, Social and Cultural Organization (UNESCO) recognized this region as a world biosphere reserve in 2002, because of its unique natural and cultural heritage. The Frontenac Arch Biosphere Reserve is one of only 13 such reserves in Canada.

The ECO is also giving special recognition to staff at the Ministry of Natural Resources who are responsible for their internal *Environmental Bill of Rights* program. Program staff promote the goals of the *Environmental Bill of Rights* through initiatives such as an *EBR* network, staff training, and internal newsletters. They also seek to maintain a high standard for postings on the Environmental Registry, and try to assess all *EBR* applications in a fair and thorough manner. The ECO commends MNR program staff for their diligent work.

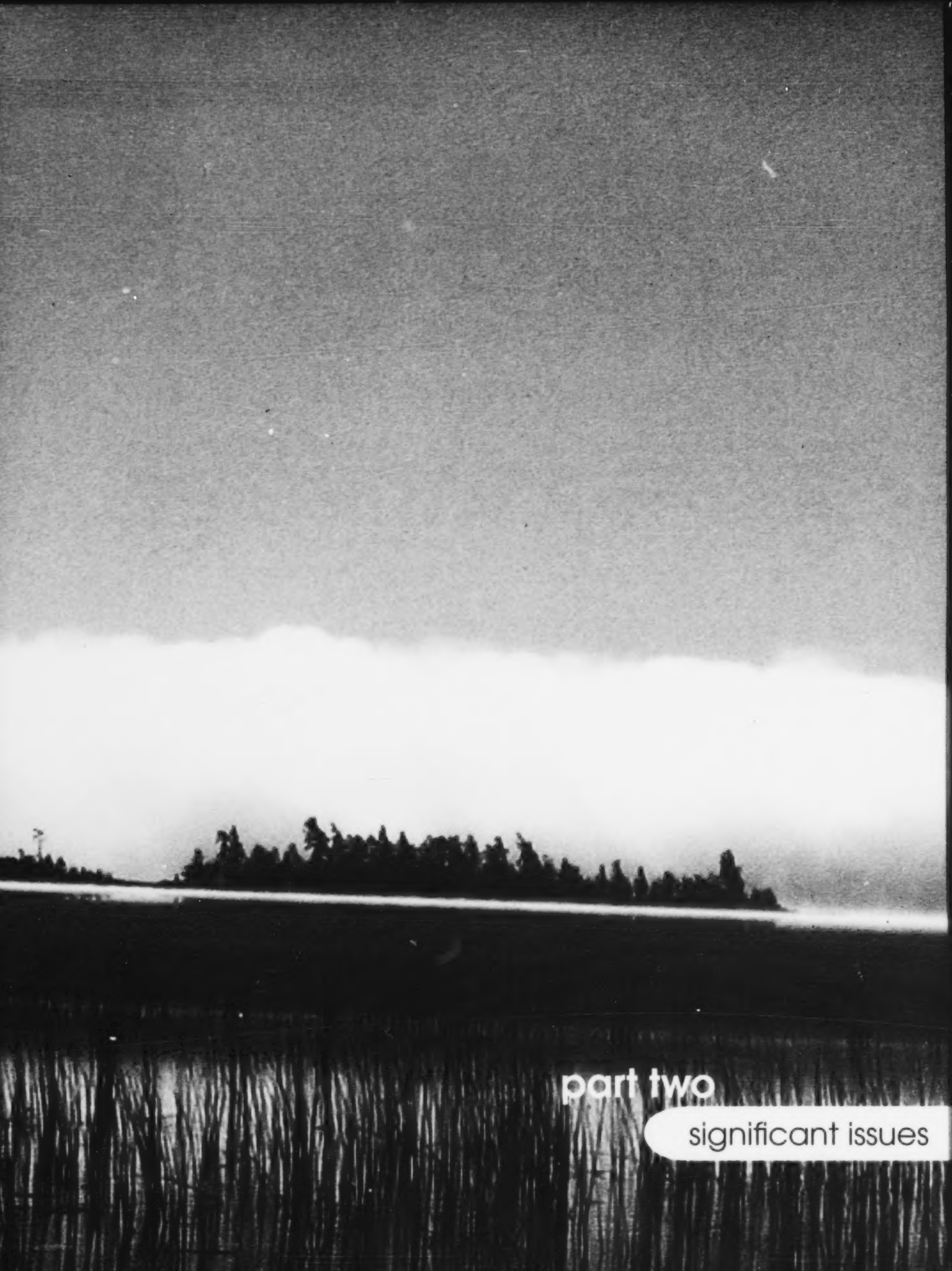
1.2 – Education

The ECO's educational mandate under the *EBR* is to ensure that Ontarians have the information they need to be able to participate in a meaningful way in the province's environmental decision-making process. This year, the ECO worked to improve the three main components of our education program. First, the full resources of the office were better integrated to support our Public Information Officer who, as the first line of response, handled over 1,500 direct inquiries to our office. This improved service ensured that members of the public received an efficient and courteous response while learning about their environmental rights under the *EBR*.

Secondly, the ECO maintained its commitment to a multi-faceted outreach strategy in a number of ways, including staff participation in broad-based environmental events and a concerted effort to reach different sectors of Ontario's population. This year, the ECO sponsored a well-attended workshop on the *EBR* Investigation process, and the Environmental Commissioner made over 40 keynote speeches, as well as numerous shorter presentations, to groups all over Ontario.

The final component of the ECO's education program is our website, which provides a wide range of information aimed at helping Ontarians exercise their legislated environmental rights under the *EBR*. The ECO website had over 105,000 visits last year. This year, we have improved and relaunched our website, which features a new FAQ (Frequently Asked Questions) section, more ways to access our previous reports, and enhanced resources to guide you through your rights under the *EBR*. We've also launched the ECO Blog at **www.eco.on.ca/blog**, featuring videos and postings from the Commissioner. Finally, we are developing a fully web-accessible site at **www.ecoissues.ca**, where you can search the full text of all of our Annual Reports. To learn more please visit our website at **www.eco.on.ca**.

As always, we invite you to call us with your questions, comments, and requests for information. Presentations can be arranged for larger groups subject to the availability of ECO staff. Our phone numbers are 416-325-3377 or toll free 1-800-701-6454.



part two

significant issues

Every year, the Environmental Commissioner of Ontario focuses special attention on a number of significant environmental issues that have been the subject of recent applications under the *Environmental Bill of Rights* or come to our attention in the course of the ECO's review work.

Our intention is to highlight issues that require prompt attention and improved handling by Ontario ministries. This year, the theme of the ECO Annual Report is "Getting to K(no)w," following up on the discussion presented in the 2006-07 Annual Report about the environmental consequences that flow from case-by-case project approvals for new quarries, housing developments and highways.

Many of the issues selected for special scrutiny fall under the jurisdiction of the Ministry of the Environment (MOE), a ministry that plays a vital role in approving and regulating new developments and protecting our air, water and land resources.

For example, we look at MOE's role in overseeing the environmental assessment process, and conclude that the process desperately needs a new vision that addresses cumulative effects and recognizes the need to promote ecological sustainability. Other topics include the work by MOE, the Ministry of Natural Resources (MNR), and other agencies responding to the challenge of drought conditions in certain parts of the province. We also review the adequacy of MOE's regional air quality monitoring and reporting system, and note that serious gaps have become evident in tracking street-level air pollution problems in many airsheds. The report also highlights the strengths and weaknesses of the Ontario government's plan, announced in August 2007, for reducing greenhouse gas emissions, as well as the lack of progress in addressing Ontario's growing biodiversity crisis.

Updates in this section include the efforts by the Ontario government to begin to rebuild capacity at MNR and MOE, and the announcement of longer-term funding on land acquisition by MNR and the Ministry of Culture.

2.1- Ontario's Action Plan on Climate Change: Deserving of Credit?

Introduction

Responding to climate change has become one of the most significant global environmental challenges facing governments, industry and citizens. In too many cases, Canadian governments and industries are just starting to formulate effective responses. For several years, the ECO has monitored the progress of the Ontario government in adopting measures to combat climate change. In past Annual Reports, we recommended that the provincial government produce a climate change strategy that includes plans for reducing greenhouse gas (GHG) emissions (i.e., climate change mitigation) and preparing for the impacts of climate change on infrastructure and ecosystems (i.e., climate change adaptation).

In our 2004-2005 Annual Report, the ECO assessed the approach of the Ontario government to mitigating climate change and found that the provincial government had no solid timelines or targets for reducing GHG emissions. A year later, the ECO evaluated the Ontario government's efforts to anticipate and adapt to the impacts of climate change and found that while many publications and outreach materials on climate change adaptation had been produced, few provincial codes, policies or infrastructure plans had been modified to consider the effects of climate change. The Ministry of Natural Resources (MNR) produced a two-page draft climate change strategy in 2004, but the ECO concluded that a comprehensive provincial plan was still greatly needed.

In August 2007, the Ontario government released a climate change strategy entitled *Go Green: Ontario's Action Plan on Climate Change* (the "Action Plan"). The Action Plan sets provincial GHG reduction targets of 6, 15 and 80 per cent below 1990 levels by the years 2014, 2020 and 2050, respectively (see Figure 1); these targets are comparable to those set by the governments of Quebec, New Brunswick and British Columbia. The Ontario government intends to meet its targets by implementing a package of measures outlined in the Action Plan. These measures include phasing out coal at Ontario's coal-fired electricity stations, supporting and funding rapid transit projects, investing in renewable energy, and advancing new energy efficiency standards.

In addition to GHG reduction targets and action measures designed to meet those targets, the Action Plan included a new role for the Office of the Environmental Commissioner of Ontario – reviewing the province's progress in reducing GHG emissions. As a first step in this direction, the ECO reviewed key components of the Go Green Action Plan to:

- assess qualitatively, and where possible quantitatively, the reduction measures identified;
- assess the reliability of the Plan's measures to meet Ontario's stated GHG reduction targets;
- provide insight into some of the challenges the Ontario government may face in implementing the measures; and
- estimate, where possible, the likelihood of the province meeting each of its major reduction targets for 2014, 2020 and 2050, based on the measures identified.

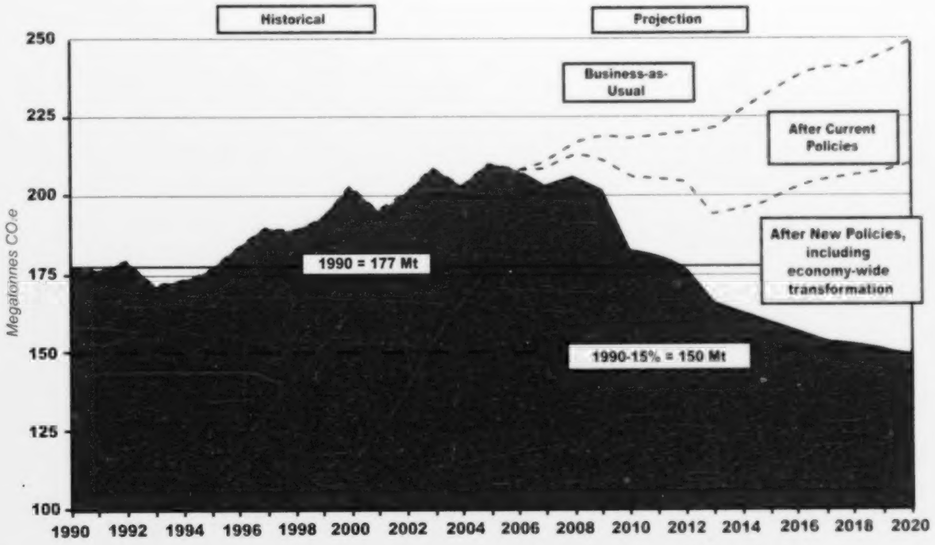


Figure 1 - Reducing Ontario's greenhouse gases by 2020: ambitious but real targets

Action Plan Measures Reviewed by the ECO

Phase-Out of Coal Use at Electricity Generating Stations

The Action Plan sets forth the Ontario government's commitment to phase out coal use at electricity generating stations in the province by 2014. This commitment was formalized when the Ontario Cabinet passed its Cessation of Coal Use regulation (O. Reg. 496/07), under the *Environmental Protection Act* (see Section 4.12 of the Supplement to this Annual Report). According to the regulation, the Atikokan, Lambton, Nanticoke and Thunder Bay generating stations are required to cease burning coal by December 31, 2014. The Plan notes that use of coal for electricity generation has been declining in Ontario since 2003, thus reducing GHG emissions from the coal stations by almost one-third. Further, the Plan foresees another one-third cut in those emissions between 2006 and 2011, based on forecasts from the Ontario Power Authority (OPA).

The Plan states that as coal use is phased out, it will be replaced by electricity generated by a mix of technologies, including hydroelectric, biomass, natural gas, wind, solar and demand management through energy conservation. Although Ontario's Integrated Power System Plan and recent news releases indicate the government's intention of building and refurbishing nuclear reactors, the Plan makes no mention of using nuclear energy for replacement generation. Nuclear generated electricity currently represents approximately 50 per cent of Ontario's electricity output, and is expected to reach the installed capacity of 14,000 Megawatts (MW) by 2025.

ECO Analysis

Coal is among the most carbon-intensive of all hydrocarbons, meaning that when combusted, coal generates more carbon dioxide (CO_2) than most other hydrocarbons. The movement towards lower carbon fuels (e.g., natural gas) is, therefore, a viable GHG reduction measure. Switching from coal to non-hydrocarbon based generation (e.g., nuclear, hydroelectric) further reduces GHG emissions. Consequently, reducing or ending the use of coal at any or all of Ontario's four remaining coal-fired generating stations will reduce Ontario's GHG emissions. Elimination of coal combustion in the electricity sector in Ontario will provide environmental benefits beyond the reduction of GHG emissions, including a reduction in mercury emissions, smog precursors and acid precipitation.

Given the large GHG reduction potential of this measure, its ready verifiability once completed, and its near-term timing, the coal phase-out plan is easily the most significant measure in the Go Green Action Plan. However, there remain some unanswered concerns about the viability of the coal phase-out, including the timing, location, and types of new sources of generating capacity (e.g., nuclear, hydroelectric, natural gas) to replace the coal-fired generating capacity, if and when retired. The ECO is aware of the difficulties and delays that some proponents have faced siting new renewable energy installations. Some of these projects are part of the OPA's plan to have renewable and other forms of cleaner electricity generation in place so that the coal-fired stations can be retired as scheduled.

Reconfiguring Ontario's electricity system to address the phase-out of the coal-fired stations will involve accommodating transmission constraints. Some of the most significant transmission line systems in the province are those associated with the coal-fired facilities, such as the Nanticoke generating station on Lake Erie. The location of transmission lines may influence where new generation sources are to be located; beyond 2015, some of the existing coal stations or their sites could be used for thermal generation based on another fuel. If that were the case, then the magnitude of GHG reductions from the coal phase-out plan would be diminished. Another constraint for some of the replacement generating capacity will be its distance from major transmission lines. For example, a suitable wind resource site might be considered too far from existing transmission lines to make the project economically viable.

One conundrum for energy planners is that the replacement of coal-fired generation with low emission and emission-free sources of electricity could relieve pressure for behavioural change to reduce electricity demand, thereby undermining the spirit of conservation in the public at large. As electricity generation in Ontario becomes increasingly less GHG-intensive, there could be less motivation to conserve electricity from a GHG reduction perspective. This could require a significant shift in GHG reduction strategies and public engagement approaches for governments and environmental non-governmental organizations (ENGOs) working to combat climate change. Nevertheless, there are still many compelling reasons to conserve electricity, such as reducing the stress on generator and transmission systems, mitigating light pollution and reducing the generation of radioactive waste.

MoveOntario 2020

The transportation sector is the largest single source of GHG emissions in Ontario. In 2005, the sector was responsible for 31 per cent of Ontario's total GHG emissions. This amounts to the equivalent of roughly 65 Mt of carbon dioxide (CO_2) per year, and the sector's emissions continue to grow. The Action Plan includes a number of measures aimed at curbing transportation emissions. Chief among these is MoveOntario 2020, which was announced in June 2007 and described as a "multi-year $17.5 billion rapid transit action plan for the Greater Toronto Area and Hamilton." The goal of MoveOntario 2020 is to build or improve 902 km of rapid transit. The Ontario government claims this will result in 800 million new transit trips per year, which will take 300 million car trips off Greater Toronto Area (GTA) roads, cut smog, and reduce CO_2 emissions by 10 Mt by 2020.

ECO Analysis

Neither MoveOntario 2020 nor the Action Plan provided a detailed analysis of how the projected reduction in CO_2 emissions will be achieved. Forecasting the GHG reduction capability of such a long-range transit project is complex and challenging. Moreover, there are numerous variables involved in completing the project and ensuring its objectives are achieved. MoveOntario 2020 will need to be able to take into account or accommodate: shifting locations of riders and employment, changes in the economy or governments, personal tastes about travel, an aging population and other variables. Any of these factors could affect the ultimate outcome of the project. Assumptions are typically used in long-range forecasting to determine the effect of a major transportation project. The reliability of most forecasts typically diminishes the further out in time that the forecast is made. Nevertheless, making such a major investment in transit over a long period of time sends a strong signal to residents that they will be able to rely on transit for a significant portion of their travel needs. This should help build support among travelers for the concept of shifting modes – from personal vehicle use to greater reliance on public transit.

Despite the complexities inherent in modelling the emission impact of long-range transit planning, improving Ontario's transit systems is vital work. Without a coherent, long-range transit plan, the business-as-usual approach would most likely result in increased GHG emissions from the transportation sector, as the most probable alternative would be increased reliance on automobile-based private transportation.

Fuels, Ethanol and Vehicle Efficiency

The Action Plan includes Ontario's intent to implement a low-carbon fuel standard which will reduce the carbon content of transportation fuels by 10 per cent by 2020 through measures such as the addition of plant-derived ethanol. It also makes references to so-called alternative fuels, like hydrogen. In regard to ethanol, the Action Plan points to the regulatory requirement for an annual average of no less than five per cent ethanol in gasoline effective as of 2007. The Plan claims that the five per cent requirement will reduce GHG emissions by 0.8 Mt annually. In regard to improved vehicle fuel efficiency, Ontario is asking the federal government to implement national standards.

ECO Analysis

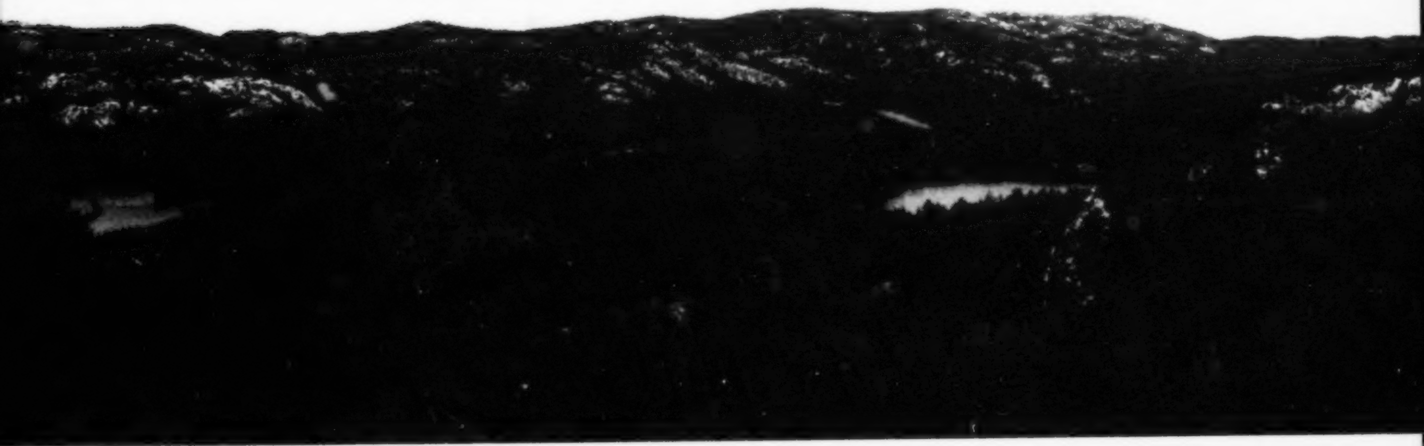
Lowering the carbon content of fuels reduces emissions of CO_2 when the fuel is combusted. For example, natural gas-fueled vehicles have lower CO_2 emissions than the equivalent model of vehicle that runs on gasoline. However, there has been a great deal of debate over the GHG reduction potential of ethanol. Whether or not plant-based ethanol can reduce GHG emissions on a full-fuel cycle basis depends on many factors, including: the plant type used, the amount of fertilizer required to grow it, the travel distance between the plant source and ethanol refinery, and the type of fuel used to produce ethanol. (It should be noted that similar factors apply to petroleum refining, and that it is an energy and resource intensive activity as well.) Research on corn-based ethanol production has found that its use as a transportation fuel can have either a positive or negative GHG impact, depending on how it is produced.

Some environmental and energy analysts have questioned the production of ethanol from food sources. However, advances in biotechnology, such as the use of plant cellulose to produce ethanol, should alleviate such concerns. Cellulosic ethanol can be produced from non-food plant material, such as wheat straw and other agricultural by-products. Furthermore, ethanol offers an opportunity to broaden the mix of fuel types used by the transportation sector, and diminish reliance on fossil fuels.

The Action Plan and supporting material from the Ministry of the Environment (MOE) acknowledge the value of reducing GHG emissions from road vehicles, as well as the challenges of doing so. Road vehicle emissions represent almost three-quarters of the emissions from the transportation sector in Ontario. Of note, is that the Canadian automotive industry is highly integrated with the U.S. and global automotive markets, making it potentially difficult, but not impossible, for any one jurisdiction to act aggressively and unilaterally. The time requirement to implement fuel efficiency standards, the ever-growing population of vehicles in the province and the contribution that this measure can make, add urgency to the initiative. The sooner that consumers and jurisdictions move to adopt more energy efficient vehicles, the sooner climate change will be reduced and other benefits will begin to accrue. The ECO encourages the Ontario government to move as swiftly as possible on this measure.

Green Power

Various measures were included under this component of the Action Plan. The OPA projects that the expansion of the Sir Adam Beck Generating Complex in Niagara Falls, when completed in 2009, will provide enough energy to power 160,000 homes. In 2007, the OPA, through its Renewable Energy Standard Offer Program (RESOP), contracted for more than a million solar panels at farms outside Sarnia, Ontario – enough to power 6,000 homes. RESOP is expected to add up to 1,000 megawatts of new renewable energy over 10 years. The Clean Energy Standard Offer Program (CESOP) lets electricity users take energy that would otherwise be unused or wasted - such as excess heat — and use it to produce electricity that can be sold back to Ontario's power grid. CESOP will help reduce barriers for small energy generators and distributed energy projects that use natural gas or surplus energy streams. Ontario is also moving forward with the next phase of the Combined Heat and Power initiative, which will allow for the procurement of larger cogeneration projects.



ECO Analysis

The measures in this component of the Action Plan set a sensible course (e.g., economic incentives for the development of cleaner forms of electricity generation). This has encouraged the development of more renewable sources of electricity, as well as cogeneration projects that can produce more heat and power.

Greening the Building Stock and Sector

The Action Plan indicates that its "Green Power at Home" initiative will help create new categories of green industry in Ontario. Ontario has dedicated $150 million to co-finance such measures as energy retrofits, upgrading insulation, and the installation of renewable energy and more efficient equipment in homes and businesses. The planned ban on the sale of inefficient incandescent light bulbs by 2012, and the work of local utilities and the Chief Energy Conservation Officer were also included. In the energy services sector, more experts will be required to conduct the planned 130,000 energy audits over the next four years, as well as builders and trades people who can install and retrofit homes and workplaces. The initiative also will require new engineering and design capacity in the area of energy efficient products and retrofit components.

ECO Analysis

Collectively, all of the various building types in Ontario – residential, commercial, institutional, etc. – are believed to account for as much as 35 to 40 per cent of the province's GHG emissions through their use of lighting, heating, equipment and other energy demands. Therefore, improving the energy performance of our building stock represents both an enormous opportunity and an enormous challenge. As indicated by research for MOE, there are very large challenges to implementing a major building retrofit program, including overcoming financing challenges and the need for a significant skilled labour training program. Nevertheless, given the large GHG impact of the building stock, such a program would be vital to the success of the Ontario government's Action Plan.

Carbon Trading System, Industrial Emissions

The Action Plan calls on the federal government to create a national carbon trading system and credit market which would establish a price for each tonne of carbon emissions avoided or captured. The Action Plan envisages the trading system working in this manner:

> "Under such a system, capped industries that emit carbon would be given allowances, which would permit them to emit a limited amount of CO_2. Only a certain number of allowances are available to these companies, and the total number of allowances represents a hard cap on all emissions produced. In addition, companies that are not capped could also receive credits for their emissions reductions, to sell into the market.
>
> If a company pollutes beyond its limit, it must purchase allowances from other capped companies that have polluted less than their allowance limit or credits from uncapped companies. In effect, companies that exceed their emission caps would be fined for polluting, while companies that successfully reduce their emissions would be rewarded."

The Action Plan calls upon the federal government to establish a carbon trading system, implying it needs to be national in scope to be fair and effective.

ECO Analysis

Development of a national carbon trading system in which Ontario would participate is one of the few Action Plan measures over which the provincial government has little control in the manner of its timing and implementation. In this regard, it makes it impossible to gauge the measure's chances of success and potential effectiveness as of early 2008. As for whether it needs to be national in scope, the ECO recognizes that, generally speaking, a larger carbon market should: minimize the costs of achieving required reductions; provide more opportunities for buyers and sellers; reduce the cost of credits and transactions; and maximize efficiency and fairness. At the time of the ECO's analysis of the Action Plan, the federal government was still formulating a national plan and working out the details with the provinces. Nonetheless, in April 2008, British Columbia introduced legislation to institute a provincial cap and trade system for carbon dioxide.

In the Action Plan, the carbon trading system was expected to deliver results on a medium to longer-term scale. A concern expressed by the ECO in the past with other proposed or actual trading systems is the ability of capped companies to seek emission reduction credits (ERCs) from uncapped sources. This could lead to a situation where the capped sources (usually the largest emitters) are under less pressure to contain their own emissions, because a supply of ERCs could be created by the uncapped companies and sectors. This is especially the case with greenhouse gas emissions, the sources of which are multitudinous, and so are the potential ERCs. Most trading systems place a limit on the amount of ERCs that can be used by any one company or sector, so that major emitters must put some effort into reducing their own emissions.

Forests

The Action Plan outlines not only measures that reduce human-made GHG emissions, but also those measures that sequester carbon (i.e., absorb it from the atmosphere), such as planting trees and maintaining forest cover. The Plan promotes the planting of 50 million trees in southern Ontario by 2020 and the continued sustainable management of provincial and private forests as measures to combat climate change. Tree planting will take place on both public and private lands and with the assistance of private landowners and community groups. Further, the Action Plan commits to planting some of these trees in urban areas, where they will help reduce smog, improve air quality, and reduce the 'heat island' effect. The Plan notes that over their lifetime, the trees in each hectare of new forest will store more than 5.5 tonnes of CO_2 annually.

ECO Analysis

The preservation of green space and the planting of 50 million trees are environmentally beneficial for a number of reasons, including biodiversity conservation, stream bank stabilization, flood management, and mitigation and adaptation to climate change. The short-term mitigation benefits of tree planting efforts will be minimal as saplings initially absorb very little CO_2 from the atmosphere; as much as 40 to 60 years' of growth is required for a tree to reach half of its full carbon storage potential. One estimate of the carbon storage potential of trees is that a midsize vehicle would require about 80 mature trees to absorb from the atmosphere the roughly four tonnes of GHGs emitted by that vehicle annually. Therefore, tree planting, while beneficial for many reasons, is a slower path to reducing carbon build-up in the atmosphere than is an aggressive emission reduction approach.

A second concern of the ECO is whether the nurseries raising trees for planting have the capability of ensuring that native and, particularly, regionally native seed stock is used. Because trees in southern Ontario have in many cases adapted to very local climate and soil conditions, a greater likelihood of long-term success in meeting multiple goals is achieved by planting trees grown from very local seed stock.

Agriculture

The Action Plan specifically identifies Ontario farmers as potential participants in a future federal carbon trading system called for by the Ontario government. Ways in which farmers could participate include: receiving "an economic reward for initiatives that offset carbon emissions by, for example, reducing tillage on farmland, improving manure management, planting grasses or trees that absorb carbon or continuing to manage existing forests in a sustainable way that preserves carbon." The province intends to work with the farming community in developing, initiating and verifying carbon offset initiatives to encourage their inclusion in an eventually finalized carbon trading system. Additional benefits of this program would include: increasing conservation lands, improving habitat, preserving wetlands, reducing waste, and improving water quality.

ECO Analysis

A carbon trading system may constitute one cost-effective means of reducing GHG emissions if the system is well-constructed and explicit rules are in place. However, some of the measures listed in the Action Plan (e.g., conservation tillage) represent widespread 'best practices' that are routinely undertaken already in the farming community. Carbon offset measures should support the development and implementation of new practices or the application of new technologies that could reduce or sequester GHG emissions and that would not have occurred under a business-as-usual scenario (this is often called 'additionality').

Initially, a trading system will need to avoid being either too stringent or too lenient about the creation of ERCs. If a facility or operation has not been limiting its emissions to the fullest extent possible, it may be an issue of affordability; penalizing this facility or operation by requiring that it purchase very expensive ERCs could create financial hardship or even drive it out of business. An extensive range of credit sources may be needed, initially, to ensure affordability. In future, phasing in tighter conditions could raise the market price of credits and help ensure that credit purchases finance increasingly more effective and harder to reach emissions sources. Consequently, an effective carbon trading system must ensure that its rules for the creation of ERCs and for how carbon offsetting measures are authenticated are defensible, rigorous and environmentally progressive.

Landfill Gas / Methane Control

The Action Plan has two distinct components to deal with emissions of methane – a gas with a global warming potential 21 times that of CO_2. MOE has proposed amendments to O. Reg. 232/98 Landfilling Sites, under the *Environmental Protection Act* that, as of early 2008, requires landfill gas capture and its use or flaring for landfills greater than 3 million cubic metres (landfill gas contains methane, other gases and water vapour). The regulation, if amended, would lower this threshold to all operating or proposed new or expanding landfills with a total waste disposal capacity larger than 1.5 million cubic metres. In April 2008, MOE revised and reposted this proposal, in part to deal with the issue of awarding GHG reduction credits to certain landfills that initiated landfill capture before such capture becomes a regulatory requirement.

The second methane management measure is embodied in amendments to O. Reg. 267/03, the General regulation under the *Nutrient Management Act*, and the Ontario Biogas Systems Financial Assistance Program to promote the installation of anaerobic digesters on farms. In July 2007, the government announced a $9 million financial assistance program for farmers and the agri-food industry to design and construct anaerobic digesters that process and convert manure and food processing by-products to a land-applied nutrient and methane gas. In July 2008, the Ministry of Agriculture, Food and Rural Affairs advised the ECO that the program is expected to fund 20 to 25 digesters province-wide. The Action Plan notes that a single digester that processes manure from 250 cows could result in 400 fewer tonnes of GHGs and generate 550 megawatt-hours of electricity every year (if electricity is generated).

ECO Analysis

Both methane capture (and its use or flaring) at landfills and the use of anaerobic digesters to treat farm and agri-wastes offer a range of environmental benefits. First, they can prevent the emission of a potent GHG to the atmosphere. Second, if the quantity of methane captured or produced is sufficient, it could be used as a fuel to generate electricity or to satisfy certain heating demands, conserving fossil fuel hydrocarbons.

Although the practice has been used in the United States and European countries for a number of years, using anaerobic digestion to treat cattle manure is a relatively recent development in Ontario. The ECO notes that O. Reg. 267/03, under the *Nutrient Management Act*, requires only that the methane gas be flared; it does not require that the gas's energy potential be used. This component of the Action Plan could be enhanced by offering an incentive to operators of anaerobic digesters to use the captured methane gas to displace fossil fuel use. Further development of this technique and its application could lead to greater GHG reduction benefits.

Greening of Government

The Action Plan highlights several initiatives to reduce the GHG emissions of the Ontario government:

- retrofitting government-owned buildings;
- modifying facility operations;
- banning the purchase of incandescent bulbs for government facilities;
- making energy-efficient procurement choices; and
- powering MOE headquarters with renewable energy.

As a result of recent efforts, the government claims it has surpassed its target of reducing the electricity use of the Ontario Public Service (OPS) by 10 per cent between 2004-05 and 2006-07. In addition to corporate-level greening, several ministries and branches are reducing GHG emissions via projects undertaken by communities of practice, environmental committees, and grassroots initiatives.

Looking forward, the government states that it will reduce its electricity consumption by another 10 per cent by 2012. Government plans to achieve this goal include:

- adopting LEED (Leadership in Energy and Environmental Design) standards for new government-owned construction and major renovations;
- upgrading existing government office buildings to BOMA (Building Owners and Managers Association) Go Green Plus program standards; and
- proposing that all electricity used by the Ontario Legislature be purchased from renewable sources.

The Plan also mentions that regulations under the new *Energy Conservation Leadership Act, 2006* could require ministries and other public agencies to prepare, implement, and report on energy conservation plans.

Besides reducing electricity use, the Plan states that the government will reduce GHG emissions by establishing two new fuelling stations for government vehicles that use a gasoline/ethanol mixture.

ECO Analysis

Measures in the Action Plan to reduce government GHG emissions focus almost exclusively on reducing electricity consumption. While the ECO acknowledges that reducing electricity use is important in addressing climate change, we note that the relative contribution of the electricity sector to Ontario's GHG emissions will decrease as electricity generation in Ontario becomes greener (i.e., with the reduction and phase-out of coal-fired electricity). A concern remains that other approaches for reducing the government's GHG production (e.g., greening of the OPS fleet, procuring local food for OPS cafeterias, and minimizing air travel, to name just three options) are not included in the Action Plan.

The ECO notes that government greening initiatives in Ontario are often scattered, uncoordinated and poorly communicated. To ensure that government greening progresses, the ECO encourages the government to:

- approve a comprehensive government greening strategy;
- put greening requirements into law;
- set up a central greening office with adequate funding;
- work towards clear targets with progress measured by regular monitoring; and
- apply government greening to the broader public sector (BPS).

Moreover, the ECO urges the government to recognize government greening as more than a chance to reduce its environmental footprint, reduce expenses, and serve as a model of sustainability. The size and power of the Ontario government (through both the OPS and BPS) allow it to drive the development of green technology and cultivate economic markets for sustainable products. It is by exercising this buying power and authority that the greening of the Ontario government can truly bring about substantial environmental change. For more information on the greening of the Ontario government, see Part 2.5 of this Annual Report.

Action Plan Deficiencies – Adaptation

The Action Plan notes that even if GHG emissions stopped tomorrow, the volume of GHGs already in the atmosphere means that Ontario will experience some climate change impacts. These impacts will affect public and private infrastructure, the natural environment, and the lives and well-being of people and other species. To assess the vulnerability of Ontario and make recommendations to address these threats, the government established an Expert Panel on Adaptation in July 2007. The Plan also mentions that as a key species already under pressure, research will be enhanced on the health and sustainability of Ontario's polar bear population.

ECO Analysis

The ECO welcomes the appointment of an expert panel to address adaptation. Nonetheless, we are still concerned that the Ontario government has not made sufficient progress on this issue. Although MNR and MOE have published a number of documents and conducted outreach efforts on the topic of climate change adaptation, neither ministry has produced an approved climate change adaptation strategy. Moreover, preparing for the effects of climate change will be an important issue for many other ministries and sectors of the economy. While awaiting recommendations from the expert panel, the ECO encourages ministries to work together to implement precautionary, 'no-regrets' measures that act on the abundant existing information regarding climate change impacts.

Furthermore, the ECO notes that some existing government programs and legislation already serve to minimize the impacts of climate change. For example: the *Clean Water Act* requires conservation authorities to consider threats to water quality and quantity (such as those caused by climate change); MNR has played a role in conserving and distributing more locally-derived forest seed; and changes to MOE's Permit to Take Water Program in the last decade could assist the management of water shortages and disputes. Other existing government programs could be beneficial in climate change adaptation if they were properly implemented, such as Ontario's air quality monitoring and reporting program (see Part 2.4 of this Annual Report) and the Ontario Low Water Response plan (see Part 2.3 of this Annual Report).

Other Measures in the Go Green Action Plan

Other initiatives were listed in the Go Green Action Plan, but were not reviewed in depth by the ECO. These include:

- the 2006 Building Code amendments;
- a $200 million loan fund and a $20 million grant fund for municipalities;
- the establishment of a NO_x-SO_2 trading system (see our 2005-2006 Annual Report);
- subsidies to automotive manufacturing;
- conservation lands acquisition;
- the *Greenbelt Act* and *Places to Grow Act*;
- working with ENGOs;
- the role of public education and recommendations as to what residents can do at home; and
- a green job fund.

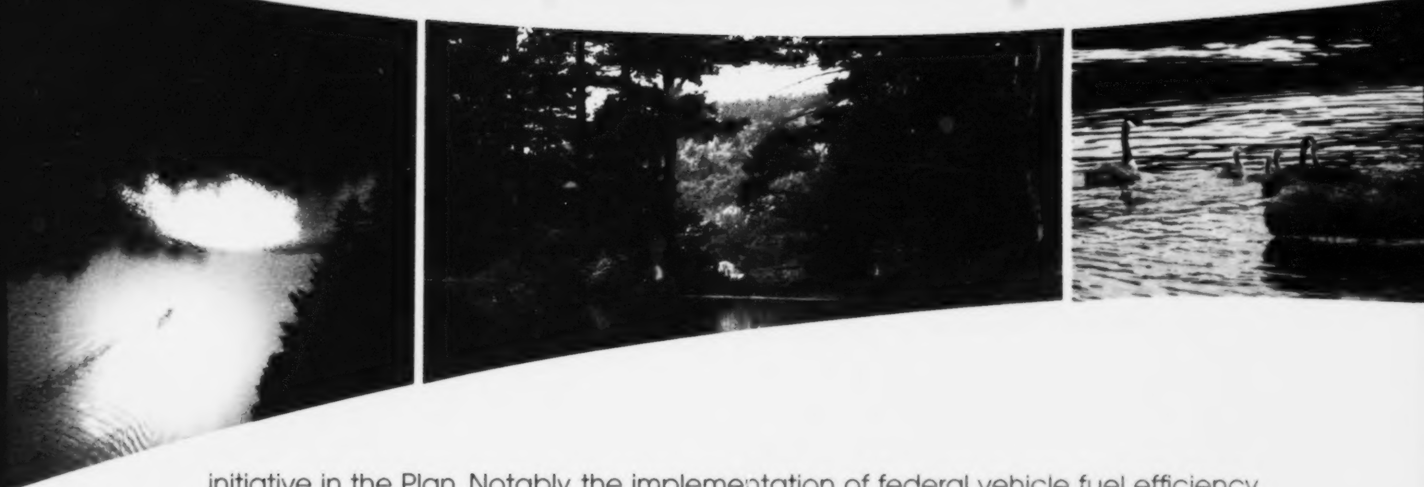
ECO Comment

In this review the ECO was, to some degree, able to assess in quantitative terms the emission reduction potential of the Go Green Action Plan. The near-term measures are more assessable than the medium-term measures, and certainly much more so than the long-term measures. Despite the lack of long-term certainty with many measures, the ECO commends the Ontario government for creating this Action Plan on climate change. Without a plan, governments have no way of measuring achievements, contextualizing their efforts in any given area and reporting progress. The Plan includes some quantifiable reduction measures, like the phase-out of coal, and a number of components with established timelines and targets. These features – quantifiable reductions, fixed timelines, and realistic targets – are essential to the credibility of any emission reduction plan.

A key point about the Action Plan that needs to be emphasized is that most GHG reductions from the Plan will not materialize for years to come. In this regard, the Plan has achieved very little in the way of GHG reductions as of early 2008.

While the Action Plan includes measures that are primarily aimed at reducing GHG emissions, it also includes measures that are as important for other environmental or societal reasons. These include the 50 million tree planting initiative, which can be valuable for a host of reasons – preserving biodiversity, habitat restoration, and flood plain management to list a few. Another measure with co-benefits would be the expansion of GTA and Hamilton area regional transit via MoveOntario 2020. While this plan has the ability to reduce GHG emissions from the transportation sector, it is also necessary for the relief of traffic congestion in this region and to prevent further degradation of air quality in southern Ontario.

As of early 2008, it appears to the ECO that the Action Plan's 2014 target of a six per cent reduction in GHG emissions below 1990 levels is achievable. There is less certainty and more guesswork involved concerning the 15 per cent reduction target for 2020 – it is a challenging target which will require the success of virtually every



initiative in the Plan. Notably, the implementation of federal vehicle fuel efficiency standards and rapid expansion of the building retrofit program into their respective markets, and the success of a national carbon trading system will largely determine whether the 2020 goal will be met. Other measures such as 'research and innovation' will not readily lend themselves to being assessed on a GHG reduction basis until specific initiatives are defined and implemented.

Finally, the 80 per cent reduction target for 2050 and the measures to be employed in reaching it are of such a distant and unknown nature that the Environmental Commissioner is unable to currently assess the likelihood of that goal being achieved. The 2050 goal requires nothing less than the complete transformation of the province, the economy and even society at large in terms of energy sources used and how these are consumed. While we are unable to assess how this objective is to be met, it is a worthy goal for the province to both set and work to achieve.

For ministry comments, please see page 213.

2.2 – Environmental Assessment: a vision lost

Environmental assessment (EA) is one of those grey, blurry areas of modern bureaucratic practice: often misunderstood, sometimes misused, but mostly ignored by the average citizen. Yet environmental assessment has a crucial role to play in our lives; it should be society's pre-eminent tool to carry out farsighted planning for public infrastructure in the name of the public good. Unfortunately, Ontario has been long burdened with an EA system where the hard questions are not being asked, and the most important decisions aren't being made – or at least are not being made in a transparent, integrated way. The province has increasingly stepped away from some key EA decision-making responsibilities, and the Ministry of the Environment (MOE) is not adequately meeting its vital procedural oversight role. As a result, the EA process retains little credibility with those members of the public who have had to tangle with its complexities.

The ECO is contacted regularly by individuals and groups frustrated by their EA misadventures. It would not be too forceful to say that Ontario's EA process is broken. This ought to concern not only academics and environmentalists, but also the business community, the development-oriented ministries and everyday Ontarians hoping to see their province move forward on a sustainable path. We have lost the old vision for EA; a new vision is urgently needed.

What the *EAA* was intended to do

Ontario's *Environmental Assessment Act* (*EAA*) was first introduced in the early 1970s, on the crest of the first great wave of environmental concern then sweeping North America. The Act featured a bold purpose statement, typical of this period of heady societal reform: it aimed for "the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment." In turn , "environment" was defined very broadly in the Act, to include not only air, land, water, plant and animal life, but also human life and the social, economic and cultural conditions influencing humans.

Turning its back on a long government tradition of autocratic back-room decision-making, the *EAA* of 1976 tried to establish an enabling framework for thoughtful, transparent planning in the public sector. The intention was clearly to nudge proponents into a new mindset and encourage strategic reflection about public sector initiatives with potentially significant and long-lasting impacts on the public good. Such undertakings would, in future, be subject to careful, up-front evaluation and scrutiny, including an examination of the "rationale" or *need* for the undertaking, and the alternatives to it. As well, members of the public were to have new, formal opportunities to provide their input and comment.

The legislation applied to projects of provincial or municipal governments, such as roads, power generation and transmission lines, as well as water, wastewater and forestry activities. And very importantly, the Act applied not only to site-specific projects, but also to province-wide plans and programs. For example, the province's high-level and long-term plans for energy supply or forest management are caught under the *EAA*, at least in theory. Certain private sector projects with strong implications for the public good (especially landfills and energy-from-waste projects) were also made subject to the Act in the 1980s.

Under the Act, proponents had to undertake a planning process to identify and assess the potential environmental impacts of the proposed undertaking, and submit the EA document to MOE. The ministry's job was to coordinate a technical review, utilizing the expertise of both its own staff and other government agencies. The EA and the government review were then made available for public inspection. Following such inspection, MOE recommended to the minister whether to accept the EA or to order the proponent to undertake further studies. The fate of the project could then be decided by the minister (i.e., to approve the undertaking, approve it with conditions or reject it), or be referred to a hearing before the Environmental Assessment Board – an independent, quasi-judicial body – or, in other cases, before a joint Board comprised of members of the EA Board and the Ontario Municipal Board. The EA Board, in its decisions, emphasized that environmental assessments should be rational, consistent, traceable, reproducible and fair. (The role of the Board was transitioned to the Environmental Review Tribunal during the period 1998 to 2000.)

Evolution of the *EAA* since 1976

The *EAA* was proclaimed in force in 1976 with a very broad theoretical mandate, but the government moved immediately to limit the application of the new law and to exempt whole categories of activities from its requirements. As well, MOE and proponents immediately felt a need to streamline many approvals through an approach that was termed a "Class environmental assessment" or Class EA. Class EAs apply a template of common planning rules to groups of similar public sector projects (new projects, as well as upgrades), such as provincial highways, or municipal water and sewer infrastructure. Planning and consultation activities are very much proponent-driven under this approach, with reduced MOE oversight – in contrast to MOE's more active involvement in an "individual" or "full" EA under Part II of the *EAA*. The Class EA approach was introduced informally within the first few years of the new legislation, and was gradually expanded to become the dominant form of environmental assessment in the province. By 1993, 90 per cent of the undertakings subject to the *EAA* had obtained streamlined approvals through the Class EA process. Class EA approaches were intended for projects that occur frequently, with generally predictable ranges of effects and relatively minor environmental impacts. But critics have long argued that too many large and environmentally significant projects have been inappropriately slipped into the Class EA approvals fast track.

Waste management projects – especially municipal landfill sites – have represented a large proportion of the undertakings receiving individual EAs under Ontario's *EAA*. These EA planning processes gradually developed a reputation for being interminable, unpredictable and costly. One legal commentator colourfully noted that they "seemed to evolve like the carnivorous plant in Little Shop of Horrors – getting hungrier after each hearing decision." A relatively small number of process train wrecks may have tarnished the whole EA program. Nevertheless, available data suggest that the process has always been churning out decisions, and usually without recourse to Board hearings; for example, between 1983 and 1995, the EA process produced 20 decisions on landfill projects, of which only three were denied, and 14 of which received approval by a minister without a Board hearing. Similarly, from 1997 to 2003, the process produced over 50 decisions, mainly dealing with smaller rural landfills, with only two referrals to hearings and one deficiency statement issued. One EA was refused on January 22, 2001.

What actually happened under the *EAA*?

While it is true that the *EAA* has never lived up to its full promise, the *EAA* has, in many instances, catalyzed a public airing of issues and a more inclusive debate than was possible through other available fora. For example, the approval of the Timber Management Class EA in 1994 was a landmark decision after four years of hearings, thousands of hours of testimony and much painful turmoil for the Ministry of Natural Resources (MNR). But the process resulted in a major rethinking of how Ontario was to manage its Crown land forests, with the need for long-term sustainability rising to new prominence. MNR notes that several key progressive initiatives have since flowed out of that wrenching examination under the *EAA*, including the *Crown Forest Sustainability Act*, Ontario's Living Legacy framework and the Forest Accord.

As the following examples illustrate, there have been a number of site-specific EAs where scrutiny and input from stakeholders have spurred modifications to reduce potential environmental impacts:

Oakville Transmission Line

In 1994, Ontario Hydro and Oakville Hydro commenced a Class EA process for an undertaking to replace a deteriorating 115 kilovolt (kV) transmission line. The preferred solution was a 230 kV line on a corridor that generated considerable public opposition, particularly near a section of the Parkway Belt in the east part of Oakville. Although this corridor had been intended for electricity transmission, there was no existing line and a new community had been built adjacent to the proposed route. Residents were concerned about visual impact and electro-magnetic fields (EMF).

The proponents held a workshop with the agencies and concerned parties and decided to re-open the Class EA process. Ultimately, it was determined that the need could be met by a smaller scale 115 kV line on a different corridor through Oakville and Burlington that cost less and generated fewer impacts than the original proposal. The line would be constructed with steel pole towers to further reduce visual impact. The Class EA process was completed without any request for a "bump-up" to an individual EA, and the transmission line is now in place.

Halton Landfill

In February 1989, a decision of the Joint Board constituted under the *Consolidated Hearings Act* gave *EAA* and other approvals to Halton Region for a proposed new landfill site in the Town of Milton. The decision followed

> a protracted process to identify new landfill capacity in Halton – the hearing itself lasted a total of 19 months. This was the first hearing on a landfill site under the *EAA*, and the decision established a range of principles that were adopted by other proponents, and reflected in later Board decisions on waste management EAs. These included: a requirement for rigorous consideration of waste diversion in establishing the need for a landfill and the required landfill capacity; a consistent and traceable approach to site selection with the application of standard siting criteria; and a set of principles for establishing the hydrogeological suitability of a landfill site.
>
> The wide ranging Conditions of Approval included a requirement to conduct further studies if a waste diversion rate of 50 per cent was not achieved within eight years (a later Minister's Declaration Order noted that this target was achieved), as well as further conditions related to hazardous waste diversion, a Citizens' Advisory Committee of local residents, and the establishment of a Special Policy Area to avoid the introduction of conflicting uses around the landfill.

Although the *EAA* was conceived to address province-wide plans and programs, as well as site-specific projects, only one province-wide plan has ever been taken to the EA hearing stage. This was Ontario Hydro's Demand Supply Plan EA – a comprehensive plan which forecast Ontario's long-term electrical power needs and projected a major supply shortfall by the mid 1990s, to be filled with several new nuclear and coal-fired facilities, as well as hydro-electric, other forms of generation and demand management. This plan went to a board hearing stage in 1990, where it faced strong criticism, but Ontario Hydro withdrew it in 1993 in the face of an economic recession that reduced demand. The forecast power shortfall did not occur; however, a few of the proposed facilities were built under separate EAs.

The Crown Land Timber Management Class EA hearing (mentioned above) was for practical purposes also an EA of a provincial plan, in that it allowed a public examination of all facets of forest management on Crown land. This EA was referred to the EA Board in 1987, and resulted in a four-year hearing. The EA Board's decision was issued in 1994, and totalled 550 pages, including 115 legally-binding terms and conditions.

The odyssey of the Ontario Waste Management Corporation (OWMC) through the EA process is often raised by EA critics as another illustration of what can go wrong. Others argue the process worked by delivering a 'No' to an unnecessary and overly expensive undertaking. The OWMC was created by the Ontario government in 1981 with a mandate to set up and manage a hazardous waste management treatment facility. A two-year EA hearing (and a process that cost millions) resulted in the Joint Board finding the EA deficient in the treatment of alternative waste management systems. The Joint Board rejected the EA and the undertaking in late 1994. The government dissolved the OWMC shortly thereafter. In the words of one commentator, "the system worked by putting the brakes on this half-billion dollar megaproject that would have remained as a white elephant for the next half-century."

Despite the bold vision of the *EAA* and some notable achievements, it is not easy to find its track record applauded in print. One rare example was provided in 1993 by the Environment Minister at the time, who stated, "Since it began 17 years ago, Ontario's environmental assessment (EA) program has been very effective in preventing environmental problems." With this faint praise, the ministry launched one of a succession of reforms to make the process "clearer, more efficient and less costly."

Major reforms in 1996

By 1989, concerns raised during a series of high-profile, complex EA cases had built up significant pressures both inside and outside of government for improving (and especially for streamlining) EA. A number of administrative reforms were proposed and undertaken in the early 1990s, such as efforts to make pre-hearing and hearing procedures more timely, effective and efficient. But these changes were modest compared with the legislative overhaul introduced in 1996, known as Bill 76, which fundamentally changed the complexion of EA in Ontario.

Among numerous other changes, Bill 76 gave the minister and the ministry important new powers and discretion, especially to scope what should be included in an EA and what can be referred to a hearing (see Scoping sidebar). Proponents now prepare a workplan, called a Terms of Reference (ToR) document that outlines the proposed scope of the project and the EA (along with justification and screening criteria), and the minister decides whether to approve, amend or reject the ToR. In MOE's words, the ToR "allows the focus of the EA to be the identification and management of potential environmental effects. In addition, it can save the proponent time and money." Critics have observed that the big questions such as *project need* and *alternatives to the project* are being swept aside by narrowly scoped EAs. Bill 76 also introduced new timelines and deadlines for various stages of decision-making. As well, concepts which had always been informally incorporated into the process – such as Class EAs and the need for public consultation – became explicitly entrenched in law. Mediation was also introduced as a tool for some circumstances, but has been little used since 1997.

The introduction of scoping and ToR in 1996 was intended to clarify and streamline EA, but it also led to a particularly complex and precedent-setting case that included a June 2003 Ontario Divisional Court Decision on the Richmond Landfill EA (also known as the *Sutcliffe* decision). While the case was fought through the

Scoping:

The *scope of a project* can be broad or narrow; for example, a broadly scoped project might include the facility itself plus ancillary roads and transmission lines. The *scope of an environmental assessment* can also be broad or narrow; for example, a broadly scoped assessment would normally include factors such as the need for the project and alternatives to the project.

courts from 2000 to 2005, it created uncertainty that put a number of EAs into limbo for a time. At issue was whether the revised language of the *EAA* meant that the minister could approve a ToR that reduces the scope of certain "generic elements," such as alternatives to be examined. In an August 2004 decision, the Ontario Court of Appeal ruled that while "need" is an important component of EA planning, it is open to the Minister, on a case-by-case basis, to exclude EA planning issues (such as "need" or alternatives) from ToR approved under the *EAA*. This direction from the Court now guides scoping decisions by the minister, since the Supreme Court refused leave to appeal the matter in March 2005.

The legislative reforms of 1996/1997 coincided with further major shifts in the EA regime. For one thing, the government decided to let lapse an eight-year pilot project that had allowed intervenors in EA processes to apply for funding to cover the costs of technical and legal expertise. Some critics complained that intervenor funding had been used to employ too many lawyers who were gumming up the process. But its dismantling left the public with greatly reduced capacity to provide informed input into the technical aspects of EA proposals. The EA program also lost the voice of a competent watchdog when the Environmental Assessment Advisory Committee (EAAC) was dismantled in late 1995, after 12 years of valuable work. Around the same time, hearings themselves became an endangered species: only two projects, both landfill sites, have been referred to EA hearings since 1996.

Continuing calls for reform

The EA reforms of 1996/1997 outraged a number of environmental and citizen groups, who said the *EAA* had been gutted. Proponents also continued to find the reformed process frustrating (especially during the uncertainty caused by the *Sutcliffe* case, mentioned above), and MOE was forced to struggle further with this problematic tension. In 2004, the Minister of the Environment created an expert advisory panel (the "Panel") to recommend ways to improve Ontario's EA process, particularly with respect to waste, transportation and energy projects. The Panel reported in 2005 that while the underlying fundamentals of the *EAA* were sound, the government should implement a package of recommendations as an integrated whole, to help "revitalize, rebalance and refocus" the EA program. Generally, the Panel proposed an approach that screened projects based on their expected environmental impacts, as well as their benefits. The Panel's recommendations also emphasized the need for:

- guiding EA principles;
- better guidance materials for proponents and the public;
- stronger integration of the EA process and other planning processes
- mechanisms to prioritize "green projects";
- the introduction of EA application fees;
- improvements to involving First Nations;
- an independent provincial advisory body;
- improved use of alternative dispute resolution;
- a more informative EA website;
- new mechanisms for the Environmental Review Tribunal to rule on contentious Class EA matters; and
- strengthening EA monitoring, inspection and compliance.

MOE's response in 2006

In June 2006, MOE embarked on a course of EA improvements. MOE promised to prioritize the energy, waste and transit/transportation sectors, with a stated goal of delivering a faster 'Yes' or 'No' for such projects, while still protecting the environment. For transit projects, the changes, so far, include a Class EA approach for surface transit, and a proposal to compress transit EAs into six months by waiving requirements to consider need, prepare terms of reference or assess alternatives to the project.

MOE's action plan also featured several new Codes of Practice setting out the ministry's expectations for practitioners. Four such Codes have since been finalized, and two more were released in draft form, as of June 2008 (see sidebar). The ministry is also indicating a new willingness to use mediation and similar tools, and has dedicated one staff person to undertake selective audits of compliance with terms and conditions of individual EAs. Some initiatives are evidently still to come. As of June 2008, MOE had not yet detailed how it plans to better integrate EA with other provincial planning processes, such as the *Planning Act*, or how it will improve EA training, education, outreach, or its long-neglected EA website.

EA Codes of Practice

In response to numerous requests from the public and proponents, as well as recommendations by the EA Advisory Panel (made in 2005), MOE committed to developing guidance material on six components of the EA process:

- the preparation and review of terms of reference for individual EAs;
- the public consultation process;
- mediation practices for dispute resolution;
- the preparation and review of individual EAs;
- the preparation, review and processing of class EAs; and
- the coordination of EAs for projects subject to both federal and provincial assessment under the Canada-Ontario Agreement on EA Cooperation.

As of June 2008, approved guidance is available for four aspects and draft guidance is available for the other two aspects of the EA process. For the ECO's reviews of the four approved Codes, see Sections 4.15 and 4.15 of the Supplement to this Annual Report.

Code of Practice: Preparing and Reviewing Terms of Reference for EAs in Ontario: This Code (Registry Policy Decision # PA06E0009, June 20, 2007) outlines: the roles and responsibilities of the government, proponent and other participants; the mandatory elements of a ToR prepared for a project undergoing an individual EA; and the government's review of the ToR.

Code of Practice: Consultation in Ontario's EA Process: This Code (Registry Policy Decision # PA06E0009, June 20, 2007) applies to consultation on the terms of reference (ToR) and environmental assessments prepared for projects undergoing individual EAs, and to documentation prepared for projects undergoing class EAs or environmental screenings. In this Code, MOE outlines the roles and responsibilities of government, the proponent and other participants, as well as notification requirements, and elements of a successful consultation plan.

Code of Practice: Using Mediation in Ontario's EA Process: This Code (Registry Policy Decision # PA06E0009, June 20, 2007) outlines how mediation may be used to resolve disputes that arise during the EA process. It covers: when mediation is appropriate; the types of mediation that are available; good mediation practices; and the roles and responsibilities of the government, mediator, proponents and the other participants.

Draft Code of Practice: Preparing and Reviewing EAs in Ontario: This draft Code (Registry Policy Proposal # 010-1259, August 17, 2007) sets out MOE's expectations for the content of an individual EA, and the roles and responsibilities of the government, proponent and other participants.

Draft Code of Practice: Preparing, Reviewing and Using Class EAs in Ontario: This draft Code (Registry Policy Proposal # 010-1259, Agust 17, 2007) sets out: MOE's expectations for the content of a "parent" class EA; the roles and responsibilities of the government, proponent and other participants; and a description of how to navigate the class EA process for a particular project.

Federal/Provincial EA Coordination: A Guide for Proponents and the Public: This Guide (Registry Policy Decision # PA06E0008, June 20, 2007) supports the Canada-Ontario Agreement on Environmental Assessment Cooperation, signed in 2004, under which the governments agreed to work together on EA projects that are subject to both the federal EA requirements in the *Canadian Environmental Assessment Act* and the provincial EA requirements in the *Environmental Assessment Act*. The governments agreed to adopt measures that will allow proponents to draft one set of documentation (on which both governments would base their approvals) and to prepare one consultation plan. The governments also agreed to impose the same or similar timelines for project deadlines and approvals. The Guide outlines the roles and responsibilities of the federal and provincial governments, and an approach to coordinating the preparation of documentation and public consultation.

The extent to which MOE's reforms follow the advice of the Panel is a matter of debate. MOE asserted in 2006 that it was responding to the majority of the Panel's recommendations. But the ministry clearly stopped far short of embracing the Panel's package as an integrated whole, influenced by comments from stakeholders who felt the Panel's approach would make the EA process too prescriptive and time consuming. Readers may refer to the ECO website for a table comparing the numerous recommendations of the Panel and MOE's actions to-date on each point.

The Panel placed great emphasis on the need for clear guiding principles on how to apply the purpose of the Act. In response, MOE has provided some (largely process-oriented) clarification in its Codes of Practice for preparing and reviewing EAs and Class EAs, which (as of June 2008) are not yet finalized. It is somewhat doubtful that these clarifications will reflect fully the intentions of the Panel. Significantly, MOE set aside the Panel's proposed approach to screening projects based on their proposed impacts and benefits. Although Class environmental assessments and the new electricity and waste management regulations and guides do apply this screening model, at least roughly, there is no overarching set of screening criteria as recommended by the Panel.

Evidently, MOE also decided against a suite of other Panel recommendations – the ministry's plans do not appear to include a renewed use of hearings, a provincial EA advisory body, a green project facilitator, a fee structure, new procedures to deal with bump-up requests or project elevation requests, or a mechanism that allows for public comments through the Registry on EA-related permits and approvals. There also appears to be little enthusiasm (and only one new compliance officer committed) to strengthening the effectiveness of monitoring and reporting, or to developing compliance programs and procedures.

Where are we now?

The *EAA* was enacted 32 years ago, articulating an admirable vision: that more informed, more transparent planning processes can lead to the betterment of the people of Ontario, and the protection, conservation and wise management of the environment. How far have we come towards realizing that vision? The *EAA* has, over time, suffered so many truncations and add-ons that it no longer bears much resemblance to its original, idealistic self. Many idealistic pieces of legislation become encrusted and their intent diluted with compromising amendments. But, by and large, trusty old statutes like the *Environmental Protection Act* or the *Ontario Water Resources Act* can still be relied upon to deliver their core mandates and protect the environment. Unfortunately, that cannot be said so unequivocally for the *EAA*. There are simply too many critical and persistent points of failure. The latest overhauls do not resolve a number of fundamental and intertangled flaws:

- important, over-arching decisions on policies and programs are not being made under the *EAA*;
- "No" is rarely an option, because projects are almost never rejected under the EA process;
- decisions are being made in a piece-meal fashion;
- proponents are being allowed to apply for and obtain other approvals prior to EA approval;
- the need for projects and undertakings are often shielded from scrutiny;
- important back-end technical details are also shielded from scrutiny;
- the quality of EA studies is "uneven";
- the statutory principle of "betterment" is being neglected;
- there is poor integration between EA and the land use planning process;
- consultation processes have been discredited; and
- the monitoring, compliance and enforcement of EA terms and conditions has been weak.

Each of these concerns is discussed in some further detail, below.

Overarching decisions on policies, programs are not being made under EAA

Many of Ontario's most important decisions – decisions that will have a significant impact on the environment and the public good – are not subject to integrated evaluation under the *EAA*. As one legal commentator has noted, "In Ontario, while there is a requirement for EA to apply not only to public sector projects, but also to policies and programs, in practice this has been honoured more in the breach than in its observance." In some cases, the province is actively making important policy decisions, but is shrouding them from EA scrutiny.

One of the most notable recent examples was described in the ECO's 2006-2007 Annual Report (pages 81- 86). Ontario's Integrated Power System Plan was exempted from the *EAA* by regulation in June 2006, even though this plan will require some of the most substantial capital investments in the province's history (on the order of $60 billion) and will have environmental implications for generations to come. As a result, Ontario's future electricity plan is being evaluated by the Ontario Energy Board with a narrow focus on rates, costs and fairness. Certainly there will be some attention to environmental matters: the Ontario Power Authority is considering factors such as air emissions, water use and land use. As well, most site-specific projects will undergo proponent-driven environmental screenings under O. Reg. 116/01 (Electricity Projects) or, possibly, through individual EAs. Nevertheless, we have lost the singular opportunity to subject the plan, as a whole, to a rigorous integrated evaluation that would have considered broader environmental and social factors under the *EAA*.

Another recent example is MNR's plan to superimpose the old forestry rules designed for Ontario's traditional forestry regions to the province's far northern boreal zone, and to do this without submitting those rules to real scrutiny through the *EAA*. The ecology of the northern boreal zone is different from more southerly forests; our northern boreal forest is still largely intact, represents an enormous store of sequestered carbon, and is affected by a harsher climate and shorter growing season. Thus the ECO recommended in its 2002-2003 Annual Report that MNR "carry out a thorough assessment of forest management approaches that are ecologically suited to the northern boreal forest and make the research results available to the public." Instead, MNR is requesting that MOE issue a Declaration Order, exempting MNR from the need to carry out an environmental assessment. MNR believes that a Declaration Order is adequate in this case, arguing that the ministry has a comprehensive knowledge of the Whitefeather Forest environment, which is largely similar to the environment of adjacent boreal forest areas. (see MNR comments; p.215).

The activities and decisions of the Ministry of Northern Development and Mines (MNDM) are also shielded from EA scrutiny through an "interim" Declaration Order. MOE initially granted the Declaration Order in 2003 for a one-year period, recognizing that MNDM needed to establish a Class EA process for the issuance of mining licences. The ECO has noted with concern that this blanket exemption has since been extended several times, and will likely require another extension before MNDM's Class EA process is established (see the Supplement to ECO's 2006-2007 Annual Report, page 224).

In some cases, the most significant decisions are simply *not* being made by the provincial government or its agencies, and thus public debate and scrutiny is never possible, either through an EA or through any other formal mechanism. For example, Ontario lacks an over-arching provincial policy for waste management that would set out capacity needs, technology preferences, goals, targets and timelines. Both the ECO and the EA Advisory Panel's Waste Group have called for such a policy (see the ECO's 2005-2006 Annual Report, pages 26-33). MOE does have a target and an approach on waste diversion, but it has become outdated. If there is no over-arching policy drafted and proposed by the province, there is no opportunity to review its merits and consider alternative options through the *EAA*. This policy vacuum means that the large issues cannot be debated and resolved at the provincial level, and instead are fought over again and again in the local context. (See also box on Screening Process for Waste Projects, p. 40). MOE has heard this concern, and has taken initial steps towards this approach with recent draft statements of provincial priority on waste and transit policy (see Registry #010-0420 and #010-3128).

SCREENING PROCESS FOR WASTE PROJECTS UNDER THE *EAA*

In March 2007, MOE filed a new regulation – the Waste Management Projects regulation (O. Reg. 101/07), under the *EAA* – as well as an incorporated guide, which together establish a simplified assessment process for certain types of waste disposal projects in Ontario. The new process, called the Environmental Screening Process for Waste Management Projects (the "Screening Process"), is intended to provide a faster, easier and more predictable assessment process for some waste projects than the full EA. (For a more detailed discussion of the Waste Management Projects Regulation, see Section 4.6 of the Supplement to this Annual Report.)

Proponents under the Screening Process are required to screen their proposed projects for potential negative environmental effects, conduct studies, and develop mitigation measures. However, proponents are not required to consider the "need" for the project or to consider potential "alternatives" (including alternatives to the project type, the technologies employed or the location selected).

Proponents are required to notify the public of their Screening Process, as well as engage in two additional phases of public consultation. However, they are allowed to use their discretion in determining the method of consultation. Proponents are also required to consult with the affected government agencies (including MOE) during the Screening Process, but the government is not required to provide any comments or advice to the proponents.

At the end of the Screening Process, the proponents must publish an Environmental Screening Report. At this point, members of the public may submit a request to the MOE Director to have the project elevated to an individual EA. Only if an elevation request is made, is the ministry required to review the Screening Report. Moreover, there is no requirement for the government to either approve or reject the Screening Report, nor is there any requirement for the ministry to monitor the proponents' compliance with these reports.

Because of its lower level of scrutiny, the Screening Process is intended to be used only for projects that have "predictable environmental effects that can be readily mitigated." However, the Waste Management Projects Regulation designates a number of waste disposal projects as subject to the Screening Process that were previously subject to the full EA requirements under the *EAA*, and thus previously deemed to be "major projects with the potential for significant environmental effects." For example, proponents of mid-size municipal landfills (with a capacity between 40,000 m^3 and 100,000 m^3), most energy-from-waste (EFW) facilities, and small incinerators that do not produce energy – which were all previously required to conduct a full EA – are now eligible to conduct the Screening Process instead.

MOE has not provided any science-based rationale to support the government's decision to change the EA treatment for many waste projects. Nor has the government finalized a provincial waste management policy to support its decisions to favour certain types of waste management projects and 'fast track' them under the simpler Screening Process. Many commenters on the proposed regulation noted that the policy decisions implemented in the regulation – such as the preference for EFWs and smaller landfills over other types of incinerators and larger landfills – remain unsupported by transparent and credible policy rationales. Most of these commenters were strongly opposed to the direction taken in this regulation.

In addition, since both public and private sector prescribed waste management projects undergoing the Screening Process will be proceeding in accordance with an *EAA* designation and exemption, all approvals related to these projects (such as Certificates of Approval for air emissions) – which would otherwise be subject to public notice, comment and appeals rights under the *Environmental Bill of Rights* (*EBR*) – will now be exempt from the *EBR* public consultation requirements. Given that projects under the Screening Process are only subject to minimal consultation requirements, the effect of the *EBR* exemption is a serious loss of transparency and public participation and appeal rights for approvals related to waste management projects.

The ECO recognizes that providing a streamlined EA process for a group of similar projects is appropriate in some cases. However, there should be an adequate policy framework (which is subject to public consultation and debate) to provide the context and support for the development of such a streamlined process. In this case, the government did not develop the necessary framework to support the streamlined Screening Process. An appropriate framework should include a provincial waste management strategy that clearly sets out the actual need for waste disposal capacity in the province and the province's preferences for different types of waste projects, as well as sound scientific information regarding the environmental impacts of the different waste options.

Without such a policy framework developed in consultation with the public, the ECO believes that it was premature for the government to develop a new Screening Process that promotes certain types of waste facilities, and eliminates the requirement to assess "need" and "alternatives."

The waste sector Screening Process retains only a few vestiges of the spirit and intent of the *EAA*, even though it is being used as a proxy for the full EA process. There is no requirement to consider "need" or "alternatives"; there is no requirement for formal approval; and a recommendation in the guide directs proponents to seek other project approvals while conducting the Screening Process. Based on these shortcomings, the Screening Process appears to be just another means of planning out the details of the proposed project, rather than a comprehensive assessment of *if* (and how) a project should proceed – as intended by the *EAA*.

"No" is rarely an option

The EA process seems to lead inexorably towards the approval of projects. A tally based on MOE's website for EA activities suggests that only two individual EAs have been refused by the ministry and three withdrawn since 1996, while 64 projects have been approved. Ministry staff qualify these statistics by noting that some poor proposals are screened out at early stages, and do not show up in the numbers. Nevertheless, it is most unusual to see a 'No' delivered under the EA process. The rare high-profile exceptions merely prove the rule, such as a February 2006 decision by the Minister of the Environment to prevent highly contentious road construction through Boyd Park in Vaughan by amending an EA workplan.

Several entrenched barriers stand in the way of 'getting to No'. Principally, these barriers include: the piece-mealing of large projects (a characteristic of Class EA approvals); the troubling practice of allowing zoning changes and financing decisions to precede EA approvals; and the explicit scoping of EA terms of reference to exclude core questions of need.

Piece-meal decision-making

The Class EA approach has the effect of breaking up major regional infrastructure initiatives for water, wastewater or transportation into multiple small projects, each proceeding on its own approval track. This makes it very difficult to consider – and for the public to provide meaningful input on – broader regional implications and cumulative effects. Piece-mealing is officially frowned upon in EA; for example, a warning that "projects must not be piece-mealed with component parts or phases being addressed separately" has been written into the Municipal Class Environmental Assessment rulebook for municipal roads, water and sewers. As well, municipalities and other planning authorities are encouraged to carry out Master Planning exercises, which are "long range plans which integrate infrastructure requirements for existing and future land use with EA planning principles." Municipalities are expected to consult with the public on Master Plans, but Master Plans do not require approval under the *EAA* – only specific projects within a Master Plan are subject to EA. Thus, in spite of the warning against piece-mealing and the encouragement to think long-range, the approach tends to lead to fragmented decision-making. For example, The York Durham Sewer System expansion was assessed as 14 different Class EA projects, despite broad regional implications; the construction phase alone has required a massive dewatering effort, removing vast amounts of water from aquifers in York Region.

Under the Class EA process, public concerns abound. A "no" decision is not a possible outcome. The ministry can only elevate the status of the project to an individual EA or impose conditions. Frustrated members of the public invoke the available appeal mechanism (a request for a "bump-up" to an individual EA, also known as a "Part II Order") about 60 to 70 times in a typical year, but to the ECO's knowledge, the ministry has not granted one such request. The minister does, in some cases, respond to bump-up requests by imposing conditions on proponents. But the conditions are often soft measures, such as additional consultation through liaison committees, rather than what is most sorely needed: stronger mitigation requirements.

Allowing other approvals to precede EA approval

The drafters of the original *EAA* of 1976 had evidently worried about the prospect of the EA process deteriorating into a rubberstamp approval, to be collected by the proponent at the tail-end of other approvals. To that end, the original Act had prohibited the proponent from taking any steps towards implementation of the project before *EAA* approval was granted, including purchasing land for the project. As well, municipal and provincial government agencies faced strong restrictions, generally prohibiting them from issuing licences, approvals, loans, grants or subsidies until approval was issued to the undertaking under the *EAA*. These requirements were intended to prevent prior commitments distorting the process of selecting the undertaking and site/route. But the 1996 amendments reversed that approach, by expressly permitting property to be acquired before the approval of an undertaking, and even before the commencement of an EA study. This contributed to a weakening of a core tenet of the original EA vision – that environmental assessment should occur *before* decisions are made about the project.

To make matters worse, MOE filed an amending regulation under the *EAA* in 2007, which, as the deputy minister (MOE) explained, "helps to streamline development in Ontario by permitting a proponent to seek land use approval for a project pursuant to a Minister's Zoning Order in advance of the approval of an EA." This strong bias towards streamlining at the expense of an evaluative approach stands in stark contrast to the original vision of the *EAA*. The fact that MOE failed to give the public the usual right to comment on this particular streamlining provision is of further concern.

A clear example of public unhappiness with a *fait accompli* style of EA is found in Section 6.1.4 of the Supplement to this Annual Report, dealing with expansions of Bradford's sewage infrastructure. In this case, the Town of Bradford East Gwillimbury planned to enlarge its sewage treatment plant (STP) to accommodate a proposed, but contentious, expansion of a nearby hamlet from 500 to 4,400 people. A request for investigation application under the *EBR* alleged that the town took significant steps advancing this project (including signing an agreement to accept $5.4 million from a developer to pay for the STP expansion and approving a contract with a construction company), but failed to consult with the public through the Municipal Class EA process on this component, thus contravening the *EAA*. MOE denied this investigation request, stating that "While actions by the Town may suggest an expansion to the (STP) service area in the future, insufficient evidence was provided that the expansion of the service area had taken place." MOE did state that further public consultation under the Class EA would be required if the town proceeds with the expansion. This case raises some larger questions. What is the point of a Class EA evaluation, if other approvals and decisions have already set the stage to proceed? And how could this process possibly lead to 'No' as a decision?

The need for projects often shielded from scrutiny

As described above, the 1996 amendments to the *EAA* mean that questions about the rationale for (or alternatives to) a project can be declared outside the scope of an EA study by setting narrow Terms of Reference. Once such questions are scoped out, the proponent need not consider them and they are not open to debate or challenge if the project were to go to a hearing. The scoping provision is used fairly often: from 1997 to 2007, 78 Terms of Reference have been submitted to the ministry, of which 24 involved some degree of scoping - most dealing with waste projects. The amendments allowing scoping remain highly contentious. In 2005, the EA Panel criticized MOE for lacking guidelines that "clearly articulate circumstances" when the Minister should or should not approve scoped ToRs. The Panel was of the view that this lack of direction "undermines clarity, predictability and accountability within the EA program." The Panel also stated that the revised ToR guideline should "narrowly prescribe those circumstances where the Minister may limit or scope the consideration of "need" and "alternatives to" within a proponent's EA process..." MOE has since finalized the ToR Code of Practice (see sidebar on EA Codes of Practice), but in the view of the ECO, the new guidance on scoping remains ambiguous.

Ongoing public concern about the scoping issue was illustrated by an *EBR* application for review in 2007. The applicants asserted that the scoping mechanism introduced dangerously vague language into the *EAA*, which undermines the overall purpose of the legislation. MOE turned down this request, arguing that there is now adequate guidance via the newly finalized Code of Practice for Terms of Reference for EA. The ministry also invoked the Ontario Court of Appeal ruling on the *Sutcliffe* case. A full review of this application is found in Section 5.2.9 of the Supplement to this Annual Report.

Waste management projects also have a new streamlined EA process available to them which does not require that need or alternatives be considered; see the Box on Screening Process for Waste Projects.

Important back-end technical details are shielded from scrutiny

Under Ontario's EA regime, the public is typically invited to comment on general plans and designs for a project, rather than technical details. Though often a source of intense public interest and concern, many technical decisions (such as scheduling of construction, air emission approvals, constraints on water taking or truck traffic, etc.) tend to be pushed beyond the back-end of the EA process, to be covered by permits and approvals under a variety of other legislation. And perversely, an exemption under the *EBR* allows proponents to obtain all permits and approvals arising from EA processes without being subject to public comment or appeal rights. Both the ECO and the EA Advisory Panel have recommended that this notorious "section 32" exemption needs amendment, because it inappropriately shrouds environmentally significant decisions from public scrutiny. For details, see the ECO's 2003-2004 Annual Report, page 52.

Uneven quality of EA studies

During the years when EA hearings still took place, the Environmental Assessment Board was often critical of the poor quality EA studies placed before it. Since EA studies form the substantive 'guts' of the evaluation, the Board expected to see assessments that were rational, consistent, traceable, reproducible and fair. But the Board often saw deficiencies, and described them in sometimes tart language:

> ...it is painful to see sincere and laborious efforts leading to such lamentable results.... The proponent's process defies replicability. (1989)
>
> ...the elimination of alternatives appeared arbitrary, subjective and poorly documented (1995)

With the virtual elimination of hearings since 1996, the important role of reviewing the sufficiency of EA studies by the Board was lost. The responsibility for quality control for EA studies has come to rest overwhelmingly with MOE, but MOE's reviews of

EA studies submitted by proponents often seem to rely on a checklist approach, with little guidance or critical oversight. As a result, EA studies remain prone to weak methodology, and are a source of frustration to stakeholders. Typical examples include:

- weaknesses in the comparison and weighting of alternatives;
- weaknesses in the use of science;
- weaknesses in the choice of what constitutes a baseline or 'do nothing' alternative; and
- weaknesses in the adequacy and timing/seasonality of field work to update older surveys.

Class EA processes have also been marred by inadequate environmental studies (as described in the ECO's 2003-2004 Annual Report, pages 56-57). As part of its EA improvement package, MOE has proposed a new Code of Practice on Preparing and Reviewing Environmental Assessments in Ontario (Registry # 010-1259), which remained at the proposal stage as of June 2008. The ECO will review this guidance document once it is finalized.

The neglected principle of "betterment"

The *EAA's* purpose remains "the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment." But observers may be forgiven for asking how much "betterment" the EA process really provides, over and above what can be routinely provided through approvals under other legislation, such as the *Environmental Protection Act*. The problem is that MOE has been very hesitant to support EA approval conditions that venture beyond the minimum *status quo* standards set out in other environmental legislation.

One vivid illustration is provided by the Class EA for the expansion of the Duffin Creek sewage treatment plant (STP) being planned by the Regions of York and Durham. The expansion will service up to 1.3 million additional sewer users connected to the "Big Pipe." The town of Ajax is situated nearby and raised a number of concerns with the existing STP, including odour problems and deteriorating water quality conditions. Although the town was not opposed to the expansion of the STP, it asked that higher environmental standards be applied, since the plant will operate for many years. While MOE staff shared the town's concerns, they were reluctant to intervene in the EA process. The Regions, for their part, refused to adopt, voluntarily, higher environmental standards, fearing repercussions from developers who would be stuck with the costs. Only after the town requested a bump-up to an individual EA, in late 2006, did the minister impose a number of conditions, including an odour management plan and an odour complaints log.

Discredited consultation processes

The ECO regularly hears from members of the public who find EA consultation processes unduly complex and opaque. They find the system weighted in favour of proponents, and are frustrated by MOE's evident inability or unwillingness to insist on fairness in consultation and in process. A frequent concern is the public's inability to access key documents and technical studies in a timely manner. MOE has also provided very little in the way of user guides or fact sheets to help EA 'novices' get up to speed quickly on the jargon and the many nuanced rules of EA consultation. MOE promised in June 2006 that its improved EA website would stress much greater transparency, but improvements are not in evidence as of June 2008. Public unhappiness with weak consultation is often exacerbated by related failings, such as flawed EA studies, and blocked public input on front-end questions of need or back-end technical details in permits and approvals.

Weak monitoring, compliance and enforcement

Much consultation and negotiation effort typically goes into the development of the detailed terms and conditions that are attached to approvals of individual EAs. For local citizens, these conditions are often the only tangible evidence of the "betterment" alluded to in the purpose of the *EAA*. Despite this, MOE has traditionally done little or no monitoring to check if these conditions are being adhered to and, instead, has relied on complaints from vigilant observers. MOE has now committed to supporting a single compliance officer, based in the EA branch, to audit selected individual EA projects for compliance with approval conditions. Whether this nod towards compliance will be adequate to deal with the large number of approved individual EAs is open to question. It will certainly not address the need for monitoring of thousands of projects proceeding province-wide through various Class EA approvals.

Casting a new vision for Ontario's EAA

The envisioning of what a stronger EA process ought to look like should not be the sole purview of academics and bureaucrats. It deserves much wider discussion and it is important that we work collaboratively on getting it right. Environmental assessment has evolved considerably over the past 30 years, both as a concept and a practice. Under the United Nations Economic Commission for Europe's (UNECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the "Aarhus Convention"), for example, which has been ratified by 40 (mainly European) countries, there is an acknowledgement that environmental rights and human rights are linked, and that we owe an obligation to future generations. The Aarhus Convention, which was adopted in 1989 and entered into force in 2001, has been described as a new benchmark in environmental democracy. It establishes rights for the public to receive environmental information; to participate in environmental decision-making; and to access justice if the first two rights are denied.

A growing number of jurisdictions are also beginning to experiment with "sustainability assessments" as an evolutionary step beyond traditional environmental assessment. "Assessment as if sustainability mattered" is how one EA expert has described this concept. The idea builds on EA, but aims to be comprehensive, emphasizing long-term as well as short-term interdependencies. Among other characteristics, sustainability assessment: emphasizes precaution; addresses cumulative and indirect effects, as well as direct effects; recognizes natural limits; and above all, aims for greater community and ecological sustainability.

Ontario's EA program clearly has a lot of catching up to do. The ECO proposes some essential benchmarks to aim for in the next round of reforms:

- an effective decision-maker at the provincial level, willing to engage in and lead on big picture planning;
- a renewed emphasis on grappling with front-end questions of need and alternatives, and questioning assumptions;
- a process capable of delivering a 'No' when appropriate;
- an effective engagement of the broader public in all aspects, but including big and medium picture planning, as well as post-approval technical issues;
- an emphasis on transparency and credibility in public consultation;
- an ability to balance the broader public interest with local concerns;
- a commitment to the precautionary approach;
- an emphasis on achieving not just mitigation, but positive contributions to sustainability (the "betterment" principle of the *EAA*); and
- an effective regulator, with compliance and enforcement capacity, to protect the quality and integrity of EA processes

As to tools and mechanisms, there are a host of options available for discussion. Some significant changes would include a judicious use of strategic or plan-level EAs and thoughtfully defined public hearings. There is also work needed to better integrate EA processes with land use planning and other planning processes. (MOE has indicated that an inter-ministerial working group is examining this.) Amending section 32 of the *Environmental Bill of Rights* to allow public input on EA-related approvals and permits would help resolve a number of transparency concerns.

Some of EA's lingering malaise has been connected to MOE's strained capacity. It is hard to lead on long-term, big picture planning via a ministry weakened by many years of eroded funding and haemorrhaged expertise. Increased resources and staffing are the missing ingredients needed to fix the weaknesses in EA monitoring and compliance and to impose some quality control on proponents' use of EA studies and consultation. To make enforcement a realistic prospect, MOE will also need to lengthen the current six-month statute of limitations on prosecutions under the *EAA*.

The need for a better EA

No private sector corporation can be successful for long without strategic business-case planning or without intelligent due diligence evaluations of new projects. This should hold doubly true for the public sector, where the planning horizons are usually much longer, the issues more complex, the burden of public trust heavier, and the implications of failure often enormous. Other than the *EAA*, Ontario has no other planning process that begins, at least theoretically, with fundamental questions about rationale or need. We do have a public inquiries process that can take a retrospective look, usually after policy decisions have gone disastrously wrong. But if we want to avert poor decisions, we should recall the original purpose of the *EAA* – "the betterment of the people of the whole or any part of Ontario" – and we should share a desire to get the EA process right.

For ministry comments, see page 214.

Recommendation 1

The ECO recommends that MOE's ongoing reforms of the environmental assessment process give renewed weight to up-front questions of "need" and "alternatives" for projects.

2.3 - Drought in Ontario? Groundwater and Surface Water Impacts and Response

Our Hydrologic Cycle is Changing

Although generally considered a water-rich province, Ontario is not immune to drought or serious water shortages. As recently as the summer of 2007 and between the years 1998 through 2002, Ontario has experienced some of the worst droughts in its history (see box on Ontario Droughts of Recent Years). Ontario has also begun to experience major changes in weather that diverge significantly from usual climate patterns, and that have produced consequences ranging - even within a single season - from destructive storm events to record-breaking low water events and drought.

ONTARIO DROUGHTS OF RECENT YEARS

1997: Hot dry conditions at critical periods forced Ottawa Valley farmers to use feed reserves for cattle or sell off about a third of their herd. Overall most farms experienced grain yields that were about half their normal amount, and much was harvested early.

1998: Driest year on record for Ontario boreal forests; third driest 12 month period in 51 years for the Great Lakes/St. Lawrence region. Grand River water levels fell to lowest levels in 40 years.

1999: Some groundwater levels in the Grand River basin fell to lowest mark in 130 years.

2001: Great Lakes region experienced the driest summer in 54 years of record. Some of the best farm land in Canada (lying between Windsor and Kitchener) suffered the driest 8 weeks on record. Almost all Ontario crops suffered huge losses due to drought.

2002: Lack of rain created drought issues for second summer in a row. For Sarnia, London, Kitchener and Waterloo, among others it was the driest August and driest month on record. Toronto (Pearson Airport) recorded the driest August since 1937. In urban areas, the lack of precipitation ravaged thousands of trees, with many dying or having increased incidence of pest attack or disease.

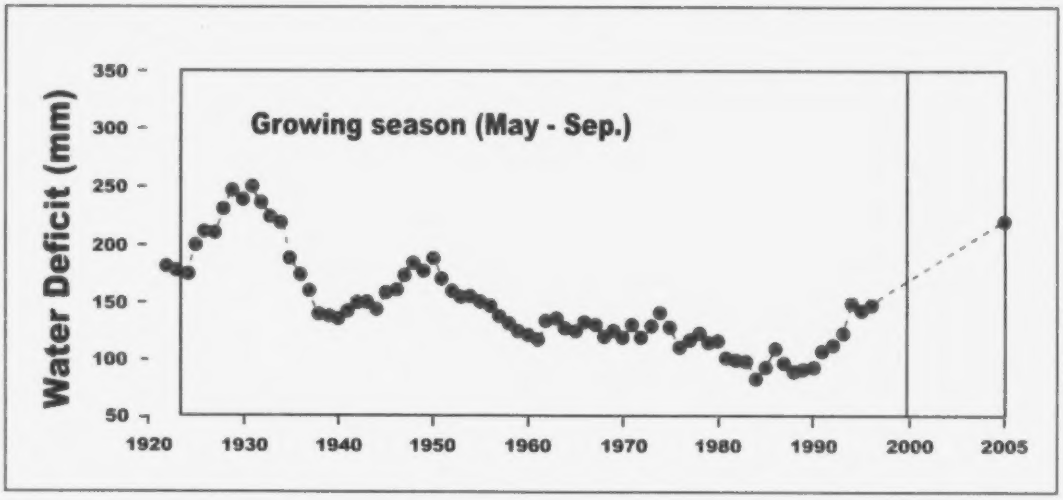
2007: By late summer, watersheds of seven conservation authorities were in a Level II low water condition. May through August rainfall was down an average of 37 per cent from 30 year averages resulting in significant yield reductions in soybean and other crops. Spencer Creek, a coldwater stream tributary of Hamilton Harbour went completely dry in the fall. The Greater Toronto Area experienced its driest year on record.

As a result of global climate change, many experts expect these extreme weather conditions to worsen. The evidence for climate change has continued to mount in recent years, and the leading scientific organization - the Intergovernmental Panel on Climate Change (IPCC) - stated in 2007 that "Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level." In a 2002 Special Report, "Climate Change - Is the Science Sound?," the ECO urged Ontario's leaders to act upon the evidence and take appropriate action to address climate change. In Part 2.1 of this Annual Report, the ECO has reviewed Ontario's first plan to deal with climate change, The Go Green Action Plan.

Modelling work, published by the Ministry of Natural Resources (MNR) in 2007, predicted that by mid-century much of southern Ontario will receive 10 to 20 per cent less precipitation and will experience considerable warming (of two degrees Celsius or more) during the warm season. These changes indicate that the risk of summer droughts will increase over the coming years. The agriculture, forestry and fisheries sectors will face major resource management challenges in adapting to these environmental shifts.

Predictions aside, statistics show that Ontarians are already starting to experience profound water-related consequences of climate change. One data set of particular interest is the long-term record of crop water deficits in the Town of Harrow in south-western Ontario. Crop water deficit is a statistic representing an integration of the three main climate variables affecting crop productivity (i.e., precipitation, solar radiation, temperature); generally, the greater the water deficit, the lower crop productivity is as a result of insufficient or poorly timed rainfall.

This record (see Figure) shows how water deficits rose through the 1920s to a peak in 1930 (the hot, dry "dust bowl" years, infamous in agricultural and socio-economic history). The water deficit situation of the 30s gradually and steadily improved over the next six decades. However, from 1990 to 2005, there has been a marked upturn, comparable with the trend observed in the 1920s, and the graph shows water deficit averages for the 1995-2005 period that have not been seen since 1935.



Growing Season Water Deficit 1920-2005 at Harrow, Ontario. After C.S. Tan and W.D. Reynolds. 10 year running mean to 1998; decadal mean 1995-2005. Extended data set 1995-2005 contributed by A. Bootsma, Agroclimatology consultant, Ottawa.

Consequences of Changes in Hydrology

During a drought, reduced surface and groundwater source availability is of concern to all, but can expose water-dependent industries, including agriculture, horticulture and forestry, to particularly grave financial risk and hardship. For example, a drought that extended across Canada in 2001-2002 was considered a national disaster. The ECO notes that agricultural practices in some parts of the province are already starting to change. For example, farmers in Essex County, one of the most drought-prone areas, are excavating numerous small storage reservoirs, and in Haldimand-Norfolk Region, farmers have recently begun irrigating crops over a longer time span within the growing season. Irrigation systems which are more water efficient, such as drip irrigation are being developed and utilized more widely.

In addition to effects on industry, drought can have severe impacts on stream ecology. Drought can cause groundwater levels to decline and this, in turn, will cause declines in the flow of groundwater-fed streams. Evaporation combined with water taking from such streams may at some point cause otherwise perennially flowing streams to dry up, with a complete loss of aquatic life.

Last year, ECO examined the high stream flow problems, reviewing provincial responses to flooding hazards. In this article, the ECO examines how the Ontario government has begun to respond to the threat of low water conditions as a growing reality within the spectrum of the hydrologic cycle, and reviews how well the province is equipped to adapt and manage water resources under the conditions of a changing climate.

Ontario Low Water Response Plan

The changing climate and anticipated stresses on water supply point to the need for strong provincial readiness for managing drought. Drought contingency planning assesses and improves the ability of stakeholders and government to respond to low water conditions in a timely and orderly way. Essential elements of such a plan include: appropriate drought indicators; instruments and policies for water allocation and water supply; methods for public information and involvement; and conflict resolution tools.

Numerous significant changes in water quantity management have been implemented in Ontario in recent years. In 2001, following the droughts of 1998 and 1999, the provincial government developed the Ontario Low Water Response (OLWR) Plan to ensure that the province would be ready to assist and support local response efforts in the event of a drought. This plan was reviewed in detail in the Supplement to the ECO's 2001-2002 Annual Report (pages 143-148). The program operates with MNR taking a lead role and working in partnership with local stakeholders, which is normally coordinated through local conservation authorities.

The OLWR Plan defines both provincial and municipal government roles in drought contingency management. A key feature of the Plan is the existence of local Wa-

ter Response Teams (WRTs). The teams include provincial and conservation authority staff, as well as representatives from local water user groups, typically involving agricultural and other rural private industry, resource management interests, First Nations and municipal government. At the provincial level, key decisions and interactions with WRTs are made by a standing committee known as the Low Water Committee.

Planning Stages

The OLWR Plan establishes three levels of low water conditions (Levels One, Two and Three) that are based on thresholds linked to precipitation records and stream flow monitoring data, together with watershed observations. The OLWR Plan describes these indicators and the thresholds and rules for transition between levels. Very generally, the transition between levels is as follows:

- **Level One** (warning and voluntary water conservation) provides the first indication of potential water supply problems. While precipitation and flow indicators set the wheels in motion for declaring a Level One condition, the local CA and/or MNR staff must confirm the condition based on observations and effects in their watersheds. Once the Level One condition has been established, WRTs are brought together.
- **Level Two** (water conservation and restrictions on non-essential use) indicates a more serious problem. The watershed's WRT confirms that a watershed has entered a Level Two condition.
- **Level Three** (conservation, water use restrictions and regulation), the most serious stage in the OLWR Plan, means that water supply is unable to meet local demands. Before declaring a Level Three condition for a particular area, the provincial Low Water Committee requires the local WRT to have:
  1. "clearly implemented and documented the conservation and reduction efforts taken through Level I and Level II strategies and (demonstrated) that the majority of the water users have participated in these efforts";
  2. documented and adequately described "significant social, environmental and economic impacts arising from current low water conditions"; and
  3. provided "recommendations ... on priorities for water use restrictions and other reduction activities within the watershed."

A Level Three condition has never been declared, although indicator criteria have been frequently met.

During low water periods, MNR and the conservation authorities collect, analyze and share precipitation and flow data, and report conditions on their websites.

Response Options

The issuing and revising of Permits to Take Water (PTTW) by MOE under section 34 of the *Ontario Water Resources Act* (*OWRA*), is the principal mechanism available to provincial regulators to control takings of ground and surface water. Most water takings from a surface source or well in excess of 50,000 litres per day require a PTTW. Exceptions are made for water used for domestic purposes, livestock watering and firefighting. In addition, many large water takings initiated prior to 1961 were grandparented by provisions of the *OWRA* that remained in force until 2008. Currently, about 6,600 PTTWs province-wide allow permit holders to take a total of about 495 trillion litres of water every year – an amount equivalent to the approximate volume of Lake Erie.

The *OWRA* affords numerous powers to the MOE Director to restrict water use, and to require studies to support applications to ensure that the quantities being allocated and withdrawn by users promote ecosystem protection and sustainability.

During low water conditions, MOE delegates responsibility for determining the relative importance of various water uses to the WRTs. Under the OLWR Plan, water uses are classified as:

- *essential* (i.e., uses directly related to human health, such as drinking water, sanitation and fire protection, as well as for basic ecological functions);
- *important* (i.e., agricultural, industrial and commercial uses); and
- *non-essential* (i.e., household uses, such as swimming pools, lawn watering and car washing).

Each WRT is responsible for developing strategies to reduce water use during Level One and Level Two conditions, targeting a ten per cent reduction in water use at Level One. At Level Two, further restrictions are implemented, including invoking member municipalities' bylaws for banning non-essential uses. Level Three is the most severe condition and when this level has been declared, the provincial agencies become formally involved in the decision-making process. If and when a Level Three condition is declared, the MOE Director can use the *OWRA* powers to restrict any water taking.

One of the main difficulties facing WRTs is the difficulty in obtaining data on actual amounts of water withdrawn by PTTW permit holders. At present, new requirements for monitoring of quantities of water used are being phased in under the Water Taking regulation (O. Reg. 387/04) (as reviewed in the ECO 2004-2005 Annual Report, pages 116 -120). Information on water withdrawals is vital to a WRT trying to determine how water is allocated in a watershed during a drought condition.

What About Groundwater Levels?

As a drought progresses, aquifers might be drawn down at increasing rates by large users, causing interference with other users on the same aquifer. At present, there are no low water criteria based upon groundwater levels, although the OLWR Plan recognizes the need to develop such criteria to aid in formulating decisions on low water conditions.

The Provincial Groundwater Monitoring Network (PGMN) and its associated Information System were developed by MOE, in partnership with MNR and conservation authorities, to meet the need to "characterize the location, quality and sustainable yield of the resource and to describe where, how and why the resource is changing." The PGMN presently consists of 465 monitoring wells equipped with data loggers and real-time data transmission to MOE and MNR offices.

Data collected from the PGMN is being evaluated as a possible additional source of information to guide decisions on response to low water. Currently, MOE staff members are developing techniques to set criteria for groundwater condition thresholds that can inform and support decisions made under the OLWR Plan. However, PGMN stations focus on ambient monitoring, which means that most water well monitoring locations have been intentionally located away from major local influences like large municipal water takings. This design feature may work against the usefulness of the data to WRTs, since monitoring locations may be geographically separated from areas of the most significant use during hot and dry periods.

MOE is currently working on developing indicator criteria using the available PGMN data. There are also studies underway to assist in better understanding links between stream flows, groundwater and precipitation.

ECO Comment

Climate change, water withdrawals and other forces promise to profoundly affect Ontario's water environment in the coming years, and will significantly affect urban and rural water users' ability to consume and need to conserve water. The ECO is pleased to note a number of recent positive changes to water management policies and practices in Ontario which will aid in adapting to current and future hydrological changes. These include the following:

- water budgets are being developed for most highly utilized watersheds under the *Clean Water Act, 2006;*
- monitoring of water quantities taken under PTTWs is now required; and
- studies are underway on groundwater and surface water interactions which will better inform water permitting.

However, the ECO remains concerned that there still are a number of serious gaps in water management practices – when low flow and drought conditions occur, the OLWR Plan may not function adequately. The voluntary implementation of water use reductions under Level One and Level Two requires communication with the public and stakeholders; however, there is generally little ability to monitor the effectiveness of these communications, despite the fact that such an evaluation is required to support a request to the provincial authority for a Level Three condition declaration.

The ECO is greatly concerned that it seems prohibitively difficult to obtain a Level Three condition declaration by the province. The requirements that must be fulfilled by the WRTs, as outlined previously, are too restrictive, in the opinion of the ECO. It is difficult for the WRTs to provide proof of voluntary implementation by "a majority of the water users." It could conceivably take nearly a month for a WRT to gather and document this information – time during which streams could dry up. The ECO is aware of two streams, one an important coldwater fish habitat, which completely dried up in summer of 2007, without a Level Three condition being declared under the OLWR Plan. This loss of a prime coldwater stream is certainly a significant environmental impact and clearly the mechanisms of the OLWR Plan were not working if its loss could not be prevented. The ECO is aware that MNR and the conservation authorities are addressing the need to streamline the system and the ECO hopes that obstacles will be removed and resources made available to increase the effectiveness of delivery and monitoring of the program at the local level.

Water Allocation and Budgeting

The ECO has commented in the past concerning over-allocation of water under the PTTW system. Water budgets established in the source water protection planning stage under the *Clean Water Act*, 2006; will be a valuable tool to help inform PTTW decision-making and ensure that water is managed through the program in a long-term sustainable manner. Recently introduced requirements that PTTW holders carry out monitoring of water taking rates are also an important tool. Over-allocation in some watersheds nonetheless exists and when low water conditions occur in these watersheds, restrictions are far more challenging to implement. As water budgets become available, the ECO recommends that MOE phase in a PTTW issuance process that builds in stepwise use reduction criteria geared to low flow level conditions. It may also be worth considering the process used in some American states where all water taking permits for a single watershed have identical renewal dates. This allows for regionally coordinated planning for water allocation and budgeting.

The ECO has also commented in past reports on the need for MOE to develop a clear policy for prioritizing water uses to ensure that PTTWs are allocated in both an ecologically sustainable and socially desirable manner (see page 120 of the ECO's 2004-2005 Annual Report, as well as the Supplement to the 2005-2006 Annual Report pages 114-153). This is particularly important in view of the increased demands placed on our water resources by a growing population, and at a time when our hydrology appears to be changing. The security of our water resources and the ecological, social and economic systems dependent upon them require the Ontario government to begin developing water supply priorities and an overall provincial water allocation strategy.

For ministry comments see page 215.

Recommendation 2

The ECO recommends that MOE revise its PTTW regulation and its basic terms and conditions for permits to take water to include mandatory water use reduction rules consistent with the Ontario Low Water Response plan.

"Climate warming will adversely affect Canadian water quality and water quantity. The magnitude and timing of river flows and lake levels and renewal times will change. In many regions, wetlands will disappear and water tables will decline." — Dr. David Schindler in "Eau Canada."

"Major challenges are projected for crops that are near the warm end of their suitable range or which depend on highly utilised water resources." — Intergovernmental Panel on Climate Change - Report 2007.

"Future droughts (are) projected to dramatically increase in both spatial extent and severity... the worst droughts on record including the (2001-2002) drought may be frequently exceeded in future." — Agricultural Adaptation to Drought in Canada - Sask. Research Council, May 2007.

2.4 - Air Quality Monitoring and Reporting in Ontario - Fostering a False Sense of Security

It is indisputable that poor air quality is a threat to human health, the environment and the economy. In Ontario, air pollution has been described as a public health crisis, linked to an estimated 9,500 premature deaths each year. Air pollutants also contaminate soil and water resources, damage vegetation and wildlife, and disrupt ecosystem functions. Every year, the environmental and health damages associated with air pollution cost the Ontario economy billions of dollars.

The Ontario Ministry of the Environment (MOE) monitors and provides regular updates on regional ambient air quality through its on-line Air Quality Index (AQI). These air quality updates and smog alerts are also reported by local radio and television stations. Many Ontarians rely on the AQI to make decisions about their daily activities, including whether to exercise outdoors or take other health precautions.

But do regional air quality reports really tell us everything we need to know to make such decisions? Within a monitoring region, pollutant concentrations may vary due to local influences, such as the placement of industrial facilities and major roadways. In urban centres, pollutant concentrations increase along busy streets, particularly during peak hours of traffic congestion. In short, the air that Ontarians actually breathe at street-level can differ significantly from the ambient air upon which AQI reports are based.

To better understand the various factors at play, the ECO undertook a study of the adequacy of Ontario's air quality monitoring and reporting regime.

STREET-LEVEL AIR QUALITY - EVERYBODY'S CONCERN

Street-level air quality is not just a health concern for pedestrians and cyclists, or for people with breathing difficulties or other sensitive health conditions. Traffic pollution presents a risk to all individuals, including motorists, vehicle passengers, street vendors, and people living and working in buildings alongside busy roadways.

Air Quality Monitoring in Ontario

The Air Quality Index

MOE operates a network of 40 air quality monitoring stations that continually measure air pollutant concentrations in rural and urban locations across the province. The monitoring stations measure six key air pollutants known to be harmful to human health and the environment, namely ground-level ozone, fine particulate matter ($PM_{2.5}$), sulphur dioxide, nitrogen dioxide, total reduced sulphur compounds, and carbon monoxide.

GROUND-LEVEL OZONE AND $PM_{2.5}$

Ground-level ozone and fine particulate matter ($PM_{2.5}$), two key components of smog, are the pollutants of greatest concern in Ontario. Ground-level ozone (distinct from stratospheric ozone, which shields us from up to 99 per cent of the sun's harmful high frequency ultraviolet rays) has been linked to negative impacts on human health and vegetation. $PM_{2.5}$ consists of fine particles measuring less than 2.5 microns in diameter that, when inhaled, can penetrate deep into the lungs. Studies suggest that there is no safe health threshold for these pollutants (i.e., they have potential health impacts at any concentration).

Using hourly air pollutant concentration data obtained from its monitoring stations, MOE assigns a numerical rating – known as the Air Quality Index (AQI) – to each pollutant using a common scale, or index. Based on the pollutant with the highest AQI (usually ground-level ozone or $PM_{2.5}$), air quality is classified into one of five categories: very good, good, moderate, poor or very poor.

MOE reports this information to the public on the Air Quality Ontario website **(www.airqualityontario.com)** in two ways: a real-time hourly AQI rating for each monitoring station and a three-day air quality forecast, also for each monitoring station. In addition, MOE issues smog alerts when the AQI is expected to be poor, or when persistent, widespread poor AQI readings occur.

No Information about Air Quality at Street-level

Within an airshed, pollutant concentrations can vary greatly from one particular location, or "micro-environment," to another. Air quality measured near point sources of emissions (e.g., industrial facilities, power plants, etc.) may be far inferior to ambient air quality. Pollutant concentrations at roadways may be 60 to 80 per cent higher than concentrations only 100 metres from the road. In cities, streets densely lined with tall buildings that trap emissions, dubbed "urban canyons," are hotspots for high levels of air pollutants. Air quality can vary even from one street to another, depending on local conditions and traffic patterns.

MOE's air quality monitoring stations are intentionally located away from local sources of pollutants in order to provide representative information about regional average exposure to air pollutants. While this information is useful for predicting air quality on a regional scale – particularly smog events – the data reveals little about air quality in micro-environments within the monitoring region.

Growing concerns about air pollution have prompted some Ontario municipalities to study air quality at a more local scale. Mobile monitoring equipment is used to obtain detailed information about pollutant concentrations near sources of industrial and transportation-related emissions. Such information can provide valuable input into municipal transportation and planning policies that, in turn, can have a significant impact on local air quality.

In the summer of 2007, the ECO asked air quality experts to undertake some short-term, street-level monitoring of particulate matter at a variety of locations across Ontario. The monitoring results showed consistently higher $PM_{2.5}$ levels at the sampling locations than at MOE's nearest AQI monitoring stations. For example, street-level samples collected in downtown Toronto recorded concentrations of $PM_{2.5}$ equivalent to an AQI in the "very poor" category. By contrast, MOE's Toronto downtown AQI station reported air quality to be "good" at that time. The limited data collected supports the ECO's concerns that Ontario's current air quality monitoring regime is falling short in providing reliable information on which to make informed decisions about personal health protection.

No Consideration of Cumulative Effects

Another shortcoming of the AQI is that it does not consider the potential cumulative or synergistic effects of different pollutants present in the air at the same time. The AQI assesses each pollutant independently, and hourly AQI ratings are based solely on the pollutant with the highest rating during that time. Since every breath we take contains a combination of the pollutants present in the air around us, assessing and reporting on air quality based on one isolated pollutant does not tell the full story.

Air Quality Health Index

In addition to the AQI, in July 2007 MOE joined Environment Canada, Health Canada, Toronto Public Health and the Clean Air Partnership in a Toronto pilot project for the federal government's new national Air Quality Health Index (AQHI). The AQHI rates the level of health risk presented by current air quality conditions on a scale of one to ten. The AQHI was designed to help the public "plan a healthy day" by making decisions based on the AQHI rating. Like Ontario's AQI, the AQHI is based on regional air quality data; however, unlike Ontario's AQI, it does consider the effects of a combination of pollutants (ozone, particulate matter and nitrogen dioxide) rather than one individual pollutant.

Learning from Others

While Ontario's AQI program is similar to programs used elsewhere in North America, air quality monitoring and forecasting systems operating in some European cities are considerably more sophisticated. Cities such as London, Paris, Vienna and Copenhagen use large, city-wide monitoring networks to obtain real-time information about air quality, not only at regional background levels, but at the street-level as well.

For example, air quality information collected from over 200 continuous monitoring stations across the Greater London Area is used to map real-time data about local air quality. Street-level air quality forecasts are also provided, using data on local traffic patterns, weather forecasts and regional atmospheric composition. The public has access to detailed maps and descriptions of real-time and predicted air quality in specific locations, at a resolution fine enough to observe air quality patterns on a street-by-street basis.

The Risks of Inadequate Monitoring

Ontario's lack of local air quality data not only creates gaps in the information conveyed to the public; it may also beget inadequate regulatory responses to significant air quality issues. For example, relatively little regulatory attention has been paid to traffic-related air pollution, a local air quality issue in urban centres. While MOE has established some regulated programs, such as Drive Clean, to reduce vehicle emissions, vehicles remain the largest single domestic source of some smog-causing pollutants.

Similarly, MOE may not have sufficient local air quality data to develop Certificates of Approval (Cs of A) for industrial facilities that are appropriately protective of air quality in surrounding communities. Relatively high concentrations of air emissions from industrial facilities are permitted on the presumption that pollutant concentrations dilute as they move away from the stack. However, Cs of A for industrial facilities are not required to take into account potential cumulative effects of pollutant concentrations from other sources, leading to local loadings of pollutants that could far exceed safe or acceptable ambient levels.

The ECO has previously expressed disappointment that, despite a recent overhaul of the regulatory framework for controlling industrial air emissions, cumulative effects assessments are not required as part of the C of A (Air) review process. Such assessments are critical to predicting the future state of air quality in local and regional airsheds. This concern was raised in 2006 in an application for review of the C of A (Air) for the Portlands Energy Centre, an electrical generating station under construction on the eastern lakeshore of the City of Toronto (described in our 2006–2007 Annual Report, page 150). The issue arose again in the discussion of an application for review of Cs of A (Air) for the ArcelorMittal Dofasco Inc. facility in Hamilton (see Part 4 of this Annual Report).

ECO Comment

The ECO is concerned that Ontarians who rely on the AQI may be lulled into a false sense of security about the quality of the air that they encounter as they go about their daily activities. While encouraging the public to take health precautions on smog days is laudable, it implies that precautions are not necessary on other days. This is reinforced by the language used to describe air quality on non-smog days (i.e., "very good," "good," and even "moderate"), and does not reflect the fact that inferior air quality (and accompanying health risks) may be encountered at street-level even when the AQI is favourable. In effect, the current system may be inadvertently enticing people to expose themselves to inferior air quality, under the false impression that a favourable AQI means the air at street-level is safe to breathe.

The ECO sees a pressing need to overhaul Ontario's outdated and inadequate air quality monitoring and reporting regime. Although improvements have been made since the AQI was introduced in 1988, it falls far short of its potential. Ontarians should have access to complete information about local air quality in order to make informed decisions about their daily activities and to take necessary health precautions. The current regime simply does not have the resolution required to adequately measure or predict air quality impacts related to major traffic corridors or important point sources.

The ECO urges MOE to build on its existing air quality monitoring network to equip Ontarians with comprehensive information about the quality of the air where we breathe it: at street-level. A key component of such a system would be a public edu-

cation and awareness program, and enhanced tools for communicating air quality information to the public. Ontario could draw on the experiences of European cities, and coordinate with other existing initiatives, to develop a world-class air quality monitoring and reporting system that will instil confidence in the Ontario public.

But improvements should not stop there; information about local air quality is also critical input to the larger air regulatory framework and can be used to support other provincial and municipal programs, particularly those relating to transportation and land use planning. There needs to be a shift in our thinking: air quality at a micro-environment scale must be factored into the equation. Integrating an enhanced air quality monitoring and reporting regime with Ontario's existing air regulatory framework could be a first step.

Finally, the ECO commends MOE for using the AQI to encourage Ontarians to reduce emissions during smog events. The ECO urges the government to consider all potential tools for improving air quality, including exploring the merits of fuel alternatives, designating low emission zones, enhancing public transit, continuing to update air standards, and updating old Cs of A (Air) to current standards, to name just a few.

For ministry comments, see page 216.

Recommendation 3

The ECO recommends that MOE expand its air quality monitoring and reporting program to include a network of street-level monitoring stations.

2.5 – The Greening of the Ontario Government

Introduction

The Ontario government, through its internal operations, has a significant impact on the environment. With 30 ministries, some 630 agencies, boards and commissions, and more than 62,000 Ontario Public Service (OPS) employees, Ontario's government operations are a considerable consumer of energy and other resources, producer of wastes, and emitter of greenhouse gases. Fortunately, by greening its practices and facilities, the government can reduce its environmental footprint, benefit financially, promote environmental sustainability, and drive the market for green products.

In August 2007, the Ontario government affirmed its intention to "demonstrate to the public and to business leaders that sustainability is not only achievable, but economically desirable." In this section, the ECO reviews recent actions by the government to reduce its environmental footprint and comments on how government greening could best be advanced.

Corporate-level government greening

Initiatives to green government in Ontario have waxed, waned and waxed again over the past 20 years. In the early 1990s, government greening flourished. The Management Board Secretariat (MBS) oversaw a program, the Green Workplace Program, which carried out internationally-recognized greening initiatives. In 1996, however, the government phased out this program as a part of broader cut-backs and because it assumed that appropriate and sufficient greening initiatives had already been incorporated into ministry practices. The end of centralized support for greening meant that any additional or on-going activity in this area was left to the discretion of individual ministries and government agencies. Despite this temporary setback, there is once again considerable impetus for greening within the Ontario government, a movement that has been picking up momentum since about 2005.

The Ministry of Public Infrastructure Renewal (PIR), through its property manager, the Ontario Realty Corporation (ORC), manages 6,000 buildings in over 130 Ontario communities. Over the past few years, the ORC has greened facilities under its operation by: upgrading and retrofitting buildings, conducting over a hundred energy audits, modifying facility operations and lease agreements, using renewable energy in some buildings, and expanding the Deep Lake Water Cooling project in May 2005 to cool Queen's Park buildings with water from Lake Ontario. PIR also relaunched a waste management program in 2002 to conduct annual waste audits in its major facilities and ensure waste separation in several government buildings.

Furthermore, in June 2007, the government announced that all new government facilities and major renovations would adopt the internationally-recognized Leadership in Energy and Environmental Design (LEED) standard. In August 2007, the government stated that over the next five years, all government facilities in excess of 90,000 square feet will be assessed using the Building Owners and Managers Association (BOMA) Go Green standard.

At the corporate level, the Ministry of Government and Consumer Services (MGCS) is responsible for purchasing products for ministries. In this role, MGCS has initiated several green programs, including: increasing the number of fuel-efficient hybrid vehicles in the OPS fleet; replacing 742 older vehicles with more fuel-efficient ones; converting OPS desktop computer screens to LCD; and, as of April 2007, banning the purchase of incandescent bulbs for Ontario government facilities. MGCS also plans to require that at least 30 per cent of all virgin paper purchased for government offices must meet the Forest Stewardship Council standard (for sustainable forestry operations), and the ministry will move toward increasing the level of recycled content in printed materials to 50 per cent by 2012.

Nonetheless, MGCS's current procurement policy still needs improvement. While the policy supports some environmental measures, it requires that environmental factors only be considered in procurement decisions for contracts valued over $10,000. Moreover, because the language requires only that environmental factors be "considered," the policy provides no assurance that green products will be favoured over cheaper but less environmentally-friendly ones.

Ministry-level government greening

In addition to the corporate-level greening outlined above, several ministries have undertaken greening initiatives of their own. This has resulted in a patchwork of greening programs across the OPS. Initiatives include: upgrading facilities under ministry control; establishing recycling programs; obtaining energy from renewable sources; and modifying facility operations and office practices to conserve energy, water and paper.

One noteworthy ministry-specific initiative is MOE's Project Green, which was launched in September 2007. By actively focusing on internal practices and employee engagement, this office strives to make MOE a model green organization that influences other ministries, businesses and the public. In addition to corporate and ministry-wide programs, individual branches and departments are also greening their operations via communities of practice, environmental committees and grassroots initiatives.

Advancing government greening

Despite laudable activity at several levels of the Ontario government, greening initiatives are often scattered, uncoordinated and poorly communicated – both to other ministries and to the public. Moreover, without a central push for government greening, there is no guarantee that current efforts will continue. What is missing is a comprehensive government greening strategy that outlines concrete actions.

The Ontario government need not reinvent the wheel, but simply recognize and apply the drivers that have contributed to successful greening programs in the private sector and other jurisdictions. Such drivers could include: centralized leadership, performance standards, targets, monitoring and reporting requirements, technical support, accountability, and legislation. The ECO recognizes that MOE has produced a draft government greening plan which outlines drivers and actions. We encourage MGCS to give serious consideration to the recommendations in this plan.

Putting government greening into legislation

While the ECO commends the government for its recent greening initiatives, there is little to prevent government greening from being put on the backburner once again; previous greening initiatives were shelved due to changes in priorities or perceptions that a culture of conservation already had been instilled into the ministries. Successful government greening requires ongoing effort that pushes the OPS to be on the forefront of resource conservation.

The ECO believes this would best be achieved by incorporating government greening requirements into legislation, rather than just issuing policies or media announcements. Several jurisdictions, including the federal government, Manitoba, and Quebec have passed legislation to enshrine the requirement that government practices be sustainable. While Ontario does not yet have legislation that specifically requires government greening, O. Reg. 102/94 and O. Reg. 103/94 passed under the *Environmental Protection Act* require that all office buildings in Ontario larger than 10,000 m^2 conduct annual waste audits, develop and implement waste reduction plans, and implement source separation programs for specified wastes. As noted by the ECO in previous annual reports, a lack of enforcement of these regulations has been a long-standing concern.

Planned regulations under the *Energy Conservation Leadership Act*, 2006 could require ministries (as well as broader public sector agencies) to prepare annual energy conservation plans and consider energy conservation when acquiring goods and services. The ECO urges the government to pass these regulations and produce similar legislative support for green procurement, greenhouse gas emissions, water conservation and other measures of sustainability.

Even without legislation that explicitly requires government greening, ministries prescribed under the *EBR* are required to consider their Statements of Environmental Values (SEVs) when making environmentally significant decisions. A few of the prescribed ministries have SEVs that encourage ministries to procure environmentally friendly products, conserve electricity and materials, and use green practices in their day-to-day operations. The ECO believes that all prescribed ministries should enhance their SEVs to explicitly require the greening of their ministry's practices. Moreover, to ensure that government greening is considered in all facets of business, ministries should consider incorporating their SEVs into their annual business plans.

Government greening office

The ECO notes the variable and scattered nature of greening initiatives across the OPS. Clearly, a central government body that sets policy, collects and disseminates information, coordinates programs, and evaluates progress is necessary to ensure a sufficient intensity of greening across the government. The importance of a centralized greening office is evident both in the momentum lost after the closure of MBS's Green Workplace Office in 1996 and the recent success achieved within MOE as a result of Project Green. Given the success of Project Green in MOE – a small ministry with an operating budget of approximately $300 million – the potential benefits of focused greening in larger ministries (like the Ministry of Health and Long-Term Care, which has an operating budget of approximately $36 billion) could be substantial. The ECO notes, however, that the establishment of a corporate greening office should encourage (rather than discourage) input from OPS employees and should be flexible enough to allow local initiatives that meet the specific mandates of individual ministries and branches.

Recommendation 4

The ECO recommends that MGCS set up a central government greening office.

Audits, targets, and report cards

It is difficult to measure and communicate government greening performance without reliable baseline metrics and regular monitoring and reporting. Even though the Ontario government monitors electricity consumption and waste diversion in large buildings, regular audits of water consumption, renewable energy production, green procurement practices, and other sustainability indicators are still needed. The ECO applauds MOE's Project Green initiative to assess the ministry's carbon footprint in order to measure progress in reducing it.

Once baseline information is obtained, measurable greening progress is best achieved by working towards targets. The effectiveness of using targets is witnessed in the government's reported meeting and exceeding of its target to reduce OPS electricity use by 10 per cent between 2004-05 and 2006-07. Nonetheless, the government has not publicly reported on its progress towards a 2002 target of procuring 20 per cent of its electricity from renewable sources or a 1991 target of maintaining water consumption at 1991 levels until 2012. The ECO encourages the government to set and work towards targets for a variety of sustainability measures and to publicly report on its progress in meeting such targets.

By monitoring resource use, the government can also identify ministries, agencies and sectors with the largest environmental footprints, and use comparative evaluations – similar to the sustainability report card system used by the UK government – to recognize top performers and to encourage lagging ministries to improve their performance. Furthermore, to ensure progress in government greening, requirements pertaining to auditing, performance monitoring, and meeting targets could be put into legislation.

Greening Ontario's broader public sector

Despite efforts to green the facilities and operations of government administrative offices, there is still a pressing need to extend government greening to the broader public sector (BPS). (The ECO notes that the government did not include the BPS in its electricity reduction target mentioned above.) The BPS includes Ontario's municipalities, universities, colleges, school boards, hospitals and health centres, and, therefore, represents both an enormous greening opportunity and a huge buying power that can drive economic markets for green products and services. Because greening initiatives within the BPS are especially uncoordinated and variable in their progress, ministries need to instigate and oversee change in the sectors under their mandate. As for the OPS, greening of the BPS could be advanced by putting directives into regulations (e.g., under the *Energy Conservation Leadership Act* or the *Local Health System Integration Act, 2006*).

The ECO recognizes progress made in upgrading some components of the BPS (e.g., the Ministry of Education's School Renewal Funding program, the greening of the Royal Ontario Museum). Moreover, on April 10, 2008, the government announced funding to help make municipal buildings more energy efficient. Nonetheless, the government has shown little leadership in greening Ontario's health care facilities, universities and public schools. The ECO believes that environmental consideration needs to be incorporated into every component of government operations, not just the administrative practices of government offices.

Summary and ECO comments

The ECO acknowledges recent (2005-2008) progress made by the government in greening OPS facilities and operations. PIR and ORC have made progress in upgrading and retrofitting buildings, improving building standards, and modifying facility operations, and MGCS has taken measures to replace energy-inefficient vehicles, light bulbs and computer screens. Likewise, through its Project Green, MOE has made commendable progress in infusing greening into its practices.

In order to ensure that government greening progresses, however, the ECO encourages the government to:

- put greening initiatives into law;
- set up a central greening office;
- work towards targets as measured by audits and evaluated by regular report cards; and
- promptly expand government greening to include the broader public sector.

Moreover, the ECO urges the government to recognize government greening as more than a chance to reduce its environmental footprint, reduce expenses, and serve as a model of sustainability. The size and power of the Ontario government (through both the OPS and BPS) allow it to force green technology and cultivate economic markets for sustainable products. It is by exercising this buying power and authority that the greening of the Ontario government can truly bring about substantial environmental change.

For ministry comments, please see page 216.

Recommendation 5

The ECO recommends that the Ontario Government use its enormous purchasing power to drive economic markets for green products and services.

2.6 – Protected Areas Planning: Managing for Ecological Integrity?

In June 2006, the *Provincial Parks and Conservation Reserves Act* (*PPCRA*) passed Third Reading in the Ontario Legislature and received Royal Assent. The Act, which replaced the *Provincial Parks Act*, modernizes the purpose and objectives for protected areas under the jurisdiction of the Ministry of Natural Resources (MNR). Ontario's protected area system is composed of 329 provincial parks and 292 conservation reserves, covering almost 94,000 km^2.

The Act states that the first priority in all aspects of protected area planning and management shall be to maintain ecological integrity, "a condition in which biotic and abiotic components of ecosystems and the composition and abundance of native species and biological communities are characteristic of their natural regions and rates of change and ecosystem processes are unimpeded."

This section of the Annual Report examines some of the implications of the new regulations under the *Provincial Parks and Conservation Reserves Act*, reviews several recently approved protected area management plans, and evaluates how the mandate of ecological integrity is being applied to managing Ontario's protected areas. (For a detailed discussion of each of these initiatives, please refer to Sections 4.19, 4.20 and 4.21 of the Supplement to this Annual Report.)

The Regulatory Framework and Ecological Integrity

In September 2007, the *Provincial Parks and Conservation Reserves Act*, along with a set of seven supporting regulations, came into force. The regulations provide management direction, designate legal boundaries, set fees, administer work permits, and allow for specific exemptions for mechanized travel in wilderness class parks. Many of the provisions of these regulations were carried forward from the previous regulatory framework, a framework that did not address ecological integrity.

For example, the regulations do not include any specific protections for species at risk. MNR policy prohibits the hunting and trapping of all species at risk in all provincial parks, unless a special exemption is issued for species of special concern. However, subsequent MNR policy exempted the eastern wolf, a species of special concern, and allowed them to be hunted and trapped in provincial parks. These prohibitions and exemptions are not reflected in the *PPCRA* regulations or any legislation.

The new regulations address some of the allowable and appropriate activities in provincial parks. However, the provisions often address only select activities as they apply to individual provincial parks, and do not establish a framework to screen the compatibility of such activities with the new legal mandate of ecological integrity. Although the maintenance of ecological integrity is now the legal and scientific standard that MNR is required to employ, the regulations generally deal with the issue in an ad hoc manner. For example:

- Jet-skiing is prohibited in Algonquin and Sandbanks Provincial Parks, but the regulations are silent on its appropriateness in other provincial parks.
- ATVs and snowmobiles are generally prohibited in all provincial parks, unless the park superintendent is "of the opinion" that the maintenance of ecological integrity is not "impeded." Some form of ATV use is currently allowed in 114 provincial parks and some form of snowmobiling is currently allowed in 135 provincial parks.
- Power boats are prohibited, except in the 95 provincial parks where exemptions have been granted.
- Aircraft landings are prohibited, except in the 73 provincial parks where exemptions have been granted.

One of the new regulations (O. Reg. 346/07) allows mechanized travel in wilderness class parks, despite the intent of the Act to maintain ecological integrity. The legal objective of wilderness class parks is "to protect large areas where the forces of nature can exist freely and visitors travel by non-mechanized means, except as may be permitted by regulation, while engaging in low-impact recreation to experience solitude, challenge and integration with nature." Numerous exemptions in the regulation provide for this non-conforming use. For example, powerboat use is permitted in various areas in all but one wilderness class park. Furthermore, while the superintendent of a park is granted authority to establish conditions for mechanized travel, including consideration of the maintenance of ecological integrity, the regulations do not address how this consideration would be methodically assessed or whether the assessment would be included in the management direction of a park.

Despite the multitude of exemptions for non-conforming mechanized travel in the *PPCRA* regulations, it is MNR's position that further exceptions, restrictions and refinements regarding mechanized travel can be made in the individual management plans for each protected area. For example, while the recently approved management plan for Woodland Caribou Provincial Park deems snowmobiling as "inconsistent with wilderness park policy" and directs its phase-out, other non-conforming activities are permitted to continue within the park.

PLANNING FOR ECOLOGICAL INTEGRITY: THE TEMAGAMI AREA

In June 2004, MNR initiated management planning for five provincial parks and eight conservation reserves in the Temagami area. The planning process, termed the Temagami Integrated Planning project, also examined the recreational use of the surrounding Crown land. The planning process included only those Temagami provincial parks and conservation reserves that were adjacent to one another, since MNR felt that they shared similar patterns of access and use, as well as environmental issues. The planning process was initiated to meet commitments made in the Temagami Land Use Plan (1997).

In August 2007, MNR released three approved plans that resulted from this process: the Temagami Area Park Management Plan for five adjacent provincial parks in the Temagami area; the Resource Management Plan for the eight conservation reserves that surround the parks; and the Crown Land Recreation Plan for Crown lands in the Temagami area.

The Temagami area encompasses roughly 650,000 hectares, 100 kilometres north of North Bay. It is a rugged, remote landscape rich in significant natural, cultural, and recreational resources. MNR states that there are 25 species at risk in the area, including the eastern wolf, the bald eagle, and the eastern cougar. The Temagami region is recognized for its stands of old growth red and white pine ecosystems and naturally significant features, such as Ishpatina Ridge, the highest point in Ontario. Many natural features of the Temagami area are sacred sites for local First Nation people; for over six thousand years, Aboriginal inhabitants have travelled by way of the *Nastawgan*, an interconnected system of winter and summer trails and portages.

ECO Comment

The ECO commends MNR for taking a comprehensive approach to planning the management of the Temagami area and encourages the ministry to apply a similar approach to future planning processes. Nonetheless, the ECO is puzzled by MNR's exclusion of two Temagami provincial parks and nine conservation reserves from the Temagami plans. Although the ECO recognizes that MNR's objective was to develop plans for adjacent areas with similar patterns of use, the ECO believes that the exclusion of some protected areas leaves some lands scattered throughout the Temagami area with either little or outdated management direction.

In developing the Temagami Area Park Management Plan, MNR tried to strike a balance between the needs of motorized and non-motorized users. MNR stated, "Managed access into the parks will balance the needs of existing authorized users with the protection of the wilderness and remote character of the parks." Unfortunately, the ECO believes that in attempting to strike this balance, MNR gave only secondary consideration to what should have been its primary concern: ecological integrity.

The ECO believes that one of the most significant threats to ecological integrity in the Temagami area is ATV, snowmobile, and motorboat travel in Lady Evelyn-Smoothwater Provincial Park (that curiously does not encompass Lady Evelyn Lake itself which is in Obabika River Provincial Park). Even limited motorized activity can have adverse ecological effects. Furthermore, the ECO believes that travel by these means is inconsistent with the intent of wilderness class parks. Therefore, the ECO believes that the Temagami Area Park Management Plan should recognize that motorboat, snowmobile, and ATV travel are non-conforming activities in a wilderness class park and should phase out such activities over time. Although most mechanized travel in Lady Evelyn-Smoothwater Provincial Park occurs in access zones, the ECO believes that the park management plan stretches the intended purpose of these zones: rather than acting as small staging areas that provide access to other zones, many of the access zones cut deep into the heart of the park.

The ECO believes that ecological integrity was also given secondary consideration in MNR's decision to grant lifetime extensions to private recreation camps that hold land use permits in the Temagami parks. Although the preliminary park plan outlined a phase-out of these permits, MNR abandoned this option in its approved plan after complaints from stakeholders. As noted in our 2006-2007 Annual Report, despite a clear commitment in MNR policy to phase out land use permits in regulated parks, governments of the day have routinely given in to political pressure and granted extensions. The ECO disagrees with the lifetime extensions and urges MNR to stand firm in its commitment to phase out land use permits in protected areas, a commitment fulfilled in its management plan for Woodland Caribou Provincial Park.

In our 2006-2007 Annual Report, the ECO commented that "Ontario's provincial parks and conservation reserves are threatened by numerous stresses, some of which originate beyond their boundaries." This concern is particularly relevant to the new Temagami management plans. First, the ECO believes that the boundaries of the waterway class parks — 200 metres from the water's edge is the minimum suggested by MNR policy — are often inadequate to protect the ecological integrity of the rivers from adverse activities conducted along their borders. Second, the ECO is concerned with the potential impacts that adjacent mining leases could have on protected areas. For example, while most of Wakimika Lake is protected by Obabika Provincial Park, three mining leases extend into a small portion of the lake not protected by the park.

The ECO is also concerned that commercial timber harvesting on Crown land adjacent to the parks and conservation reserves may have detrimental impacts on the ecological integrity of these protected areas. The ECO encourages MNR to use a greater ecosystem approach and consider the potential impacts of external industrial activities on Temagami area parks and conservation reserves. In particular, the ECO hopes that the forthcoming Forest Management Plan for the Temagami Crown Management Unit will address the ecological impacts of timber harvesting on adjacent protected areas and include appropriate buffers zones to mitigate such effects.

The ECO believes that the management and recreation plans lack specifics as to what will be done when and by whom. Given the history of access violations in the Temagami area, the ECO believes the plans should detail exactly how a prohibition against unauthorized motor access will be enforced and how decommissioned roads will be physically rehabilitated. Likewise, the ECO believes that the plans' directives to develop research, inventory, and monitoring programs are vague and noncommittal. The ECO is disappointed that the plans do not more fully detail research and monitoring plans, particularly with regard to identifying old-growth forests and indicators of ecological integrity.

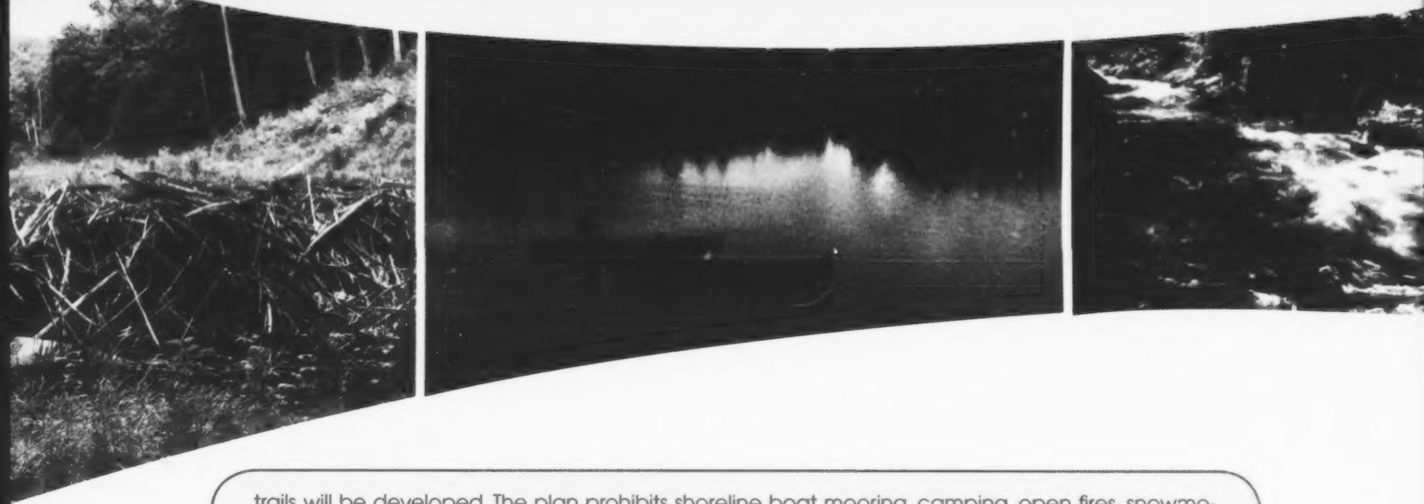
Furthermore, while supportive of MNR's plans to develop partnerships with stakeholders, the ECO is concerned with statements in the conservation reserve resource management plan that the maintenance of recreation facilities will be delegated to a partnership "should the government's financial support for the maintenance program change in the future." Despite any changes in financial support, the ECO believes that MNR must remain accountable for the maintenance of campsites and canoe routes in the conservation reserves, as it is the ministry's duty to maintain ecological integrity.

PLANNING FOR ECOLOGICAL INTEGRITY: O'DONNELL POINT

O'Donnell Point Provincial Park is situated on Georgian Bay, between Port Severn and Parry Sound. It was established as a nature reserve class provincial park in 1985, covering 875 hectares. The purpose of this class of provincial park is to represent and protect distinctive natural habitats and landforms. O'Donnell Point Provincial Park is a non-operating park with no visitor facilities. Recreational camping has always been prohibited and day-use is discouraged "due to the sensitivity of the park's natural values." This provincial park has nationally and provincially significant biological features, as well as earth science features of provincial significance. According to MNR, the protected area contains 473 species of vascular plants, including 34 provincially rare species and species at risk. MNR states that there are 17 species of mammals within the provincial park, likely including eastern wolves that also are classified as a species at risk.

In September 2001, MNR initiated a review of the management direction of O'Donnell Point Provincial Park. A month later, MNR informed the public that the review would also consider the disposition of Crown land to the Moose Deer Point First Nation. MNR stated that this disposition would potentially involve some lands within the park itself, thereby necessitating a realignment of the park boundary. In May 2007, MNR released its approved management plan for the park, as well as its preferred course of action for the disposition of Crown lands.

The intent of the management plan is to protect the sensitive natural heritage features of the park. Accordingly, recreational use of the protected area will be "actively discouraged" and no hiking



trails will be developed. The plan prohibits shoreline boat mooring, camping, open fires, snowmobiling, and ATV use. In addition, hunting and commercial trapping are not permitted in this park, commercial fishing is prohibited, and sport fishing is not encouraged.

The management plan proposes three options for the disposition of park land to the Moose Deer Point First Nation. MNR's preferred option involves: the disposition of 160 ha of the park along Twelve Mile Bay; the disposition of 103 ha of Crown land adjacent to the eastern boundary of the current reserve area; and the addition of 180 ha of Crown land to the regulated area of the park. The ministry's preferred land disposition option involves retaining the 20-metre (66') shoreline road allowance along Twelve Mile Bay.

Concurrent with MNR's park planning process, the Moose Deer Point First Nation developed a Land Use Plan that was amended based on the ministry's proposed disposition of Crown lands. MNR states that this planning document strives "to achieve the dual aim of protecting sensitive areas while providing sufficient developable areas to meet the community's future needs." The ministry also states that the plan's land restrictions "meet or exceed municipal and/or provincial restrictions" and "will prevent any potential impacts to water quality from any future developments and mitigate impacts from current uses."

ECO Comment

The ECO believes that the O'Donnell Point Provincial Park Management Plan and the related Crown land disposition are a success story. MNR diligently worked toward a solution that will benefit both a protected area under its jurisdiction and a local First Nation community. As one commenter on the plan noted, this initiative has produced a "win-win" result.

Valid concerns were raised with regard to the effects of new and existing development along the shores of Georgian Bay, specifically with regard to the impairment of water quality. While the park management planning and land disposition processes were not specifically intended to address water quality issues, they do afford the possibility of making a positive contribution to the broader issue of watershed management. MNR's use of an adaptive management approach potentially will aid the ministry in being responsive to issues in and around O'Donnell Point Provincial Park. Additionally, the participation of local residents on an ecosystem protection group and the use of the O'Donnell Point Notification Protocol relating to development issues likely will assist in addressing broader environmental issues that concern all local residents.

The ECO encourages MNR to actively explore co-management opportunities for O'Donnell Point Provincial Park with the Moose Deer Point First Nation. Such opportunities could include collaborative partnerships to monitor and manage the wildlife, fisheries, and vegetation in the park. Partnerships of this nature would benefit protected areas, as well as local communities.

Summary and ECO comment

The Temagami Area Park Management Plan and the O'Donnell Point Park Management Plan highlight several positive approaches taken by MNR to park planning (see boxes). These approaches include collaborating extensively with local First Nations and taking a wider ecosystem perspective that considers lands adjacent to protected areas. However, despite these encouraging approaches, the ECO reminds MNR that its legal priority in planning and managing Ontario's protected areas is now ecological integrity. As described above, the ECO is concerned that MNR sometimes gave secondary consideration to what should have been its first priority: maintaining the ecological integrity of protected areas.

MNR has an opportunity to safeguard ecological integrity in all protected areas by giving the issue top consideration in the development of new policies and regulations. The *Provincial Parks and Conservation Reserves Act* requires MNR to prepare a new planning manual by September 2009 that details policy directions for provincial parks and conservation reserves. The ECO looks forward to reviewing the manual and assessing how MNR considers its new priority of ecological integrity.

The *Provincial Parks and Conservation Reserves Act* states that recreational opportunities in protected areas should be "compatible" and "ecologically sustainable." In accordance with this direction, the ECO believes that MNR should re-evaluate the appropriateness of allowed activities in protected areas and phase out inappropriate and non-conforming uses that compromise ecological integrity. Compliance with the principles, purpose, and objectives of the overriding legislation can be achieved through the development of new regulations and policies that support ecological integrity. Although MNR policy specifies deadlines for the phase-out of several non-conforming uses in provincial parks (e.g., commercial trapping and land use permits), these commitments are not reflected in the new regulations. The ECO reiterates a comment made in our 2006-2007 Annual Report that the phasing out of non-conforming activities should be reinforced by regulation and not left to the discretion of policy.

The *Provincial Parks and Conservation Reserves Act* requires MNR to publicly release an assessment of the state of Ontario's provincial parks and conservation reserves by the year 2012. This "state of the parks' report" will include an assessment of the known threats to the ecological integrity of provincial parks and conservation reserves. The ECO expects the assessment to involve a review of non-conforming activities and the steps that MNR is taking to systematically address them. The ECO believes that MNR should ensure that it has allocated sufficient resources and compiled the necessary baseline information to support this assessment well in advance of the scheduled release of the report in four years' time.

For ministry comments, please see page 216.

2.7 – Doing Less with Less: Rebuilding MOE and MNR – A Glimmer of Hope

On April 24, 2007, the Environmental Commissioner of Ontario (ECO) released a Special Report "Doing Less with Less: How shortfalls in budget, staffing and in-house expertise are hampering the effectiveness of MOE and MNR." The Special Report noted that "the need to rebuild the expertise and resources available to the Ministry of the Environment (MOE) and the Ministry of Natural Resources (MNR) has become a matter of urgency for Ontario legislators and the Ontario public."

The Special Report outlined the critical role that these ministries play in safeguarding Ontario's environmental resources and amenities, and analyzed changes to their operating budgets and staffing levels since 1992. Despite ongoing expansions in the core responsibilities of both ministries and the growth of Ontario's population and industry between 1992 and 2006, the operating budgets of MOE and MNR were 34 per cent and 18 per cent lower, respectively, in 2006/2007 than in 1992.

The ECO explained how shortfalls in budget, staffing and in-house expertise have resulted in MOE and MNR failing to meet their core responsibilities for setting rules, monitoring and reporting, inspection and enforcement, and planning. Based on research done in 2006 and early 2007, the ECO discussed how MOE was not meeting its full responsibilities for inspection of industrial facilities and private water wells, enforcement of environmental legislation, regulation of discharges from sewage treatment plants, and for timely review and updating of air, water and waste approvals. Similarly, MNR was not meeting its full responsibilities for park management and planning, inspection of the aggregate sector and long-term planning for aggregate resources, the monitoring and reporting on fish and wildlife resources, and enforcement of fish and game legislation. The ECO concluded that fewer operating dollars have also resulted in staff cuts and loss of policy, technical and scientific expertise. The ECO made three recommendations that, if implemented, should help to restore the operational funding, staffing levels and in-house.

In the two years since 2006/2007, the province's operating budget has grown by 12.1 per cent. In this update to the Special Report, the ECO reviews the changes to the operating budgets of MOE and MNR and the funding promises made in the March 2008 Ontario Government Budget.

MOE - 2008/2009 Operating Budget and Budget 2008

According to the 2008/2009 estimates, MOE's total operating budget has increased by 30.1 per cent in the last two years. MOE's three main programs – Air, Water and Waste – all received significant funding increases. In addition, Budget 2008 included several funding promises.

- The Air Program's operating budget in 2008/2009 is 75.9 per cent higher than in 2006/2007. In addition, Budget 2008 included $41 million over the next four years to develop air toxics legislation and a toxics reduction strategy, and $10 million over four years to support the proposed ban on cosmetic pesticides, including compliance with the ban.

- The Water Program's operating budget in 2008/2009 is 22.7 per cent higher than in 2006/2007. Clean water and source protection initiatives continue to be priorities receiving over 40 per cent of MOE's total operating budget.
- The Waste Program's operating budget in 2008/2009 is 25.3 per cent higher than in 2006/2007.
- The government has promised to allocate "nearly $31 million over four years for new inspection resources and staff" to encourage recycling, support the lead (Pb) action plan and other compliance initiatives.
- The government has promised to provide $10 million in 2008/2009 to modernize MOE's lab and monitoring equipment and $7.3 million over two years to upgrade the ministry's lab and monitoring facility in Toronto.

Despite a significant increase in its operating budget in 2008/2009, MOE's Climate Change Program is less than five per cent of MOE's overall operating budget.

MNR - 2008/2009 Operating Budget and Budget 2008

According to the 2008/2009 estimates, MNR's total operating budget has increased by 16.2 per cent in the last two years. The Natural Resource Management Division's operating budget increased by 26.3 per cent, including a 15.5 per cent increase for Forest Management, a 29.3 per cent increase for Fish & Wildlife, a 59.9 per cent increase for Field Services Support (that includes enforcement activities), and a 13.8 per cent increase for Ontario Parks.

Included in these increases were an almost 14 per cent increase in transfer payments to bolster the forest sector and an 11.4 per cent increase in anticipated revenues from fees and licences charged to park users, fishermen, hunters and trappers since 2006/2007. These revenues are directed to Special Purpose Accounts (SPAs) that provide about 75 per cent of the operating funds for the Fish & Wildlife Program and Ontario Parks. Budget 2008 included a promise of $15 million over four years to fund a new invasive species management centre.

The ministry remains committed to priorities established for 2006/2007, such as the northern boreal initiative and investment in the forestry sector. Support of renewable energy generation and implementation of the Ecological Framework for Recreational Fisheries Management were also continued. Although the new Provincial *Parks and Conservation Reserves Act* that came into force in 2007 requires Ontario Parks to meet much higher standards for park management and planning than before, no new funding has been provided to support its implementation. In contrast, $18 million over four years beginning in 2007 has been made available to support public stewardship activities under the *Endangered Species Act* even though it did not come into force until June 30, 2008.

ECO Comment

The increased funding for MOE's Air, Water and Waste Programs in the last two years is welcome news. Although the ECO continues to be concerned about current levels of funding for inspection and enforcement of environmental legislation, a core responsibility of the ministry, the promises in Budget 2008 of funding for inspection staff and resources is encouraging, as is the support for air toxics initiatives. The increased funding for MNR's Natural Resource Management Division is also welcome news, particularly the funding increase for Field Services, which includes enforcement. However, the continued heavy reliance on SPA funding for Ontario Parks and the Fish & Wildlife Program is disappointing.

The ECO is encouraged by these developments and urges the government to continue rebuilding the capacities of MOE and MNR to healthy and effective levels by following through on the recommendations in our Special Report. The ECO will continue to review MOE's and MNR's operating budgets and to monitor their capacity to fulfil their core responsibilities.

For ministry comments, please see page 216.

2.8 – Biodiversity in Crisis

The loss of biological diversity is at a crisis point in Ontario. It is happening now and it will continue to get worse without concerted action. In conjunction with climate change, the continuing loss of biodiversity is arguably among the most pressing issues that the Government of Ontario must address in the 21st century. Left unchecked, future generations will face an ecological reality that bears little resemblance to the Ontario that we know today.

Biological diversity or biodiversity can be understood simply as the variety of life on Earth. It is the variability of native species and the wealth of ecological systems, of which they are a part, forming a layer of life around the planet known as the biosphere. The biosphere has been described as uniting the innumerable plants, animals, and microbes physically and chemically with the atmosphere, geosphere and hydrosphere into one massive ecological system within which millions of species thrive.

Biodiversity has intrinsic and inherent value. Yet, it also is the foundation upon which human well-being depends for the services that the natural environment provides. Biodiversity is inextricably linked with the quality of the air we breathe, the water we drink, the fertile soils we depend upon for our food, and the lands upon which we depend for our natural resources. Thought of another way, biodiversity is about our rivers and lakes, our forests and wetlands, the songbirds we see in our backyards, and even those animals, like woodland caribou or wolves, that live in remote wilderness areas.

TRENDS IN THE ABUNDANCE AND DISTRIBUTION OF WILD BIRDS

Bird populations have been widely recognized as reliable indicators of biodiversity. Birds occur in large numbers and in a wide range of habitats all over the world, and are sensitive to environmental change. It is believed that declines in bird populations are linked to degradation of the environment, and that a decline in bird population signals a likely decline of other species for similar reasons.

Trends in abundance and distribution of selected species, including trends in bird populations, are an indicator for assessing progress towards the 2010 Biodiversity Target. The Wild Bird Index, in use in Europe and currently being expanded to a global scale, is used as an indicator of the general health of the wider environment and will serve as input to the 2010 Biodiversity Target.

Monitoring studies show that common bird species are in decline in many parts of the world. It has been demonstrated that "(t)he status of bird species show a continuing deterioration across all biomes over the last two decades." In particular, experts have warned that migratory bird populations are steadily deteriorating around the world.

Trends in the status of Ontario's bird populations were recently reported in the *Atlas of the Breeding Birds in Ontario, 2001-2005*. Released in 2007 and based on data collected by 3,000 volunteers who spent over 150,000 hours in the field, the atlas reveals that population trends appear generally positive for some bird populations, including many forest birds such as thrushes and warblers, and large species such as the Canada goose, sandhill crane, wild turkey and several species of swan. Some species that were previously in decline such as the peregrine falcon, bald eagle and merlin have rebounded.

However, the atlas also reveals that trends for many other species in Ontario show steep declines. In particular, populations of grassland, wetland and scrubland birds and birds that feed on flying insects, including the common nighthawk, bobolink, whip-poor-will, chimney swift and several species of swallow, have declined significantly in the last two decades.

By its nature, biodiversity is profoundly complex, and extremely vulnerable to human impacts. It is estimated that species extinction rates have increased by as much as 1,000 times above the natural background rates that were typical over Earth's history until the last several centuries. Between 1970 and 2000, the average abundance of some 3,000 wild species declined by about 40 per cent globally. Trends like these may seem abstract as they speak to the planet at large, but Ontario is squarely in the midst of this global environmental crisis.

Despite our own dependence on biodiversity, threats caused by human actions are primarily responsible for the loss of biodiversity. The most significant threats are habitat alteration and loss, climate change, invasive alien species, overexploitation, and pollution. The 2005 Millennium Ecosystem Assessment, launched by the United Nations Secretary-General in 2001 and based on the contributions of 1,360 experts from 95 countries, concluded:

- biodiversity is being lost at rates unprecedented in human history;
- losses of biodiversity and decline of ecosystem services constitute a concern for human well-being, especially for the well-being of the poorest;

- the costs of biodiversity loss borne by society are rarely assessed, but evidence suggests that they are often greater than the benefits gained through ecosystem changes;
- drivers of loss of biodiversity and the drivers of change in ecosystem services are either steady, show no evidence of declining over time, or are increasing in intensity;
- many successful response options have been used, but further progress in addressing biodiversity loss will require additional actions to address the main drivers of biodiversity loss; and,
- unprecedented additional efforts will be required to achieve, by 2010, a significant reduction in the rate of biodiversity loss at all levels.

ECO Comment

The trends are quite clear: biodiversity is being lost at the fastest pace in human history, and will continue unless substantial actions are taken. The root causes of the loss of biodiversity are also clear. The Ontario government has the responsibility and authority to address this issue. However, what remains to be seen is what actions the Ontario government takes to address this environmental crisis. There is little room or time for complacency.

Canada is among the 190 countries that are parties to the international Convention on Biological Diversity (CBD). The commitment of the international community, made in 2002, is "to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth." This 2010 Biodiversity Target was endorsed by the United Nations General Assembly. The international community has agreed that, "Unprecedented additional efforts are needed, and these must be squarely focused on addressing the main drivers of biodiversity loss."

In 2005, the Ministry of Natural Resources (MNR) released Ontario's Biodiversity Strategy. In principle, the strategy is a means for Ontario to address its specific responsibilities that we – as Canadians and as an international community – have pledged to tackle. This strategy did mark a notable shift in attitude by the provincial government; for the first time, it explicitly recognized that Ontario has some responsibility to take action to conserve biodiversity.

Ontario's Biodiversity Strategy contains 37 recommendations. Upon its initial release, 10 priority actions were identified to be undertaken in 2005. Since that time, no new priority actions have been identified. An interim biodiversity report was released in May 2008; it was not unanimously accepted by the Ontario Biodiversity Council that drafted it, in part, due to the almost total absence of any new initiatives being identified.

Without question, conserving biodiversity is a provincial interest and a government-wide responsibility. However, there is scant evidence that the Ontario government has taken this mandate to heart or views conserving biodiversity as its direct responsibility. For example, the strategy itself does not detail which ministries are responsible for what actions, nor does it contain any timelines for any implementation measures. The ECO noted in our 2005-2006 Annual Report,

> "A successful biodiversity strategy should not attempt to be all things to all people. Its first and foremost focus should be the conservation of biodiversity. There are already a multitude of other government programs, policies, and strategies that seek to capitalize on the province's natural resources and promote economic growth."

The United Nations Environment Programme (UNEP) stressed in 2006 that to effectively address this crisis, "Implementation must occur across sectors, with biodiversity issues integrated into… policies, programmes and strategies on trade, agriculture, forestry and fisheries, and into development planning." As the lead ministry, MNR has not even met with any other provincial ministries – such as those dealing with environment, mining, municipal affairs, agriculture, transportation, energy, aboriginal affairs, or education – to ensure that this issue is being addressed by all responsible branches of government.

TRENDS IN THE COVERAGE OF PROTECTED AREAS

The coverage of protected areas and the effectiveness of their management are indicators for assessing progress towards the 2010 Biodiversity Target. The introduction of the *Provincial Parks and Conservation Reserves Act*, which directs that the first priority of these areas is the maintenance of ecological integrity, is a positive step. However, serious concerns remain with regard to adequate funding and the enormous backlog of management plans that must be developed.

Ontario's existing protected areas do not provide uniform representation or coverage of the province's ecological regions. Most protected areas are in the middle third of Ontario, largely due to the success of the Ontario's Living Legacy initiative in the 1990s. However, the lack of protected area coverage in the northern and southern parts of the province is striking. Only 7.8 per cent of northern Ontario's land base and 1.1 per cent of southern Ontario are designated as protected areas. It is significant that only one new protected area (94 ha) has been identified and created in the last decade across the entire province, subsequent to the Ontario's Living Legacy initiative.

The urgency of the biodiversity crisis does not appear to register on the government's radar. MNR's focus is limited to developing a baseline report for the year 2010 that outlines the current state of knowledge about Ontario's biodiversity. While such information is unequivocally necessary, it is incumbent on the Ontario government to enact concrete measures – now, in 2010, and beyond – to actually conserve biodiversity. The United Nation's Millenium Ecosystem Assessment notes that,

> "precise answers are seldom needed to devise an effective understanding of where biodiversity is, how it is changing over space and time, the drivers responsible for such change, the consequences of such change for ecosystem services and human well-being, and the response options available."

There has been a distinct lack of new initiatives to conserve biodiversity, beyond those that were announced in 2005 or earlier. For example, the introduction of the *Provincial Parks and Conservation Reserves Act* and the *Endangered Species Act, 2007* were important milestones. However, in the intervening period, progress has substantially slowed. One positive step that has been committed to by the Premier in July 2008 is that the Ontario government will undertake the protection of 225,000 km^2 of land in northern Ontario.

TRENDS IN THE STATUS OF SPECIES AT RISK

The change in status of species at risk has been identified as an indicator for assessing progress towards the 2010 Biodiversity Target. Examples of species at risk in Ontario include woodland caribou, eastern wolves, loggerhead shrikes, spotted turtles, and the blue ash. Increases in the number of species at risk can be attributed to both a more thorough understanding of what already exists, as well as actual observable declines in population levels. The shift to an apolitical, science-based listing process under the new *Endangered Species Act, 2007* will likely lead to an increase in the number of listed species at risk in Ontario.

There are 183 species currently designated as extirpated, endangered, threatened, or of special concern by MNR. This list has increased by 40 species in the last decade. However, in that same period, only two species have recovered to the point where their at-risk status has been down-listed. Ontario's State of the Forest Report 2006 also notes that the number of species at risk that are associated with forests more than doubled from 42 to 89 species between 2000 and 2005; the at-risk status of eight species also increased and none had their at-risk status decrease.

This lack of action is overwhelmingly disappointing. In part, the ECO believes this inaction is attributable to insufficient allocation of funding and human resources. It also seems that the Ontario government does not appear to see or appreciate the bigger picture, as set forth so cogently in the UN's 2010 Biodiversity Target. Consequently, Ontario is missing its opportunity to be a global leader in conserving biodiversity.

Many of the small steps that the government has undertaken involve off-loading responsibilities to third-parties, such as non-governmental organizations or volunteer committees. It is true that governments alone cannot solve this crisis. However, side-stepping responsibility is not the solution. The public expects the Ontario government to be the steward of province's biodiversity: its forests, wetlands, wildlife, fisheries, and species at risk.

While it may be surprising to some, there is no law in Ontario that actually obligates the government even to monitor biodiversity, let alone expressly conserve it across the province. In part, this is an historical artefact as government ministries have largely been responsible for the management of natural resources for consumptive purposes, coming at the expense of conservation for its own sake.

The ECO is profoundly concerned about the lack of deliberate, systematic, and coordinated government action to conserve Ontario's biological diversity. All too often, ministries such as MNR are seemingly forced into a conflicted role, having to advocate for the very resource extraction and utilization undertakings that can jeopardize biodiversity. Instead, their roles should be cast as champions of biodiversity in order to effectively stave off this environmental crisis and to uphold the public interest.

TRENDS IN INVASIVE ALIEN SPECIES

Alien species are animals, plants and micro-organisms that spread or are introduced to areas beyond their natural geographic range due to human activities. Alien species may be introduced to new areas deliberately or unintentionally through activities such as cargo shipping. Alien species are considered to be "invasive" when they present a risk of harm to the environment, economy and/or human health of the new areas that they inhabit.

Invasive species are one of the primary threats to biodiversity. It is estimated that invasive species contributed to nearly 40 per cent of all animal extinctions for which the cause is known since the 17th century. Invasive species may exert negative impacts on an ecosystem by:

- competing for food, water, space, and other resources;
- altering the habitat; preying directly on or parasitizing native species;
- weakening the gene pool by interbreeding with native species; and
- spreading disease (in fact, an invasive species may be a disease itself).

MNR has recognized that "(p)reventing the introduction of invasive species is the key to avoiding long-term harm to our ecosystems."

In Ontario, the Great Lakes Basin has been the area most affected by invasive species, with over 180 species introduced into the Great Lakes alone, some of which are considered invasive. Invasive shellfish species such as the prolific zebra mussel are believed to have been transported to the Great Lakes in the ballast water of large ships. The sea lamprey, a parasitic eel-like fish that causes devastating ecologic damage, is believed to have spread to the Great Lakes through the man-made canal system.

In terrestrial biomes, MNR reports almost a quarter of all Ontario's plant species are alien. Invasive species have been identified as "a main direct driver of biodiversity loss across the globe." Current trends suggest that that the rate and risk of introduction of invasive species have increased significantly in recent years. Invasive species are an indicator for assessing progress towards the 2010 Biodiversity Target.

Conserving biodiversity should be clearly acknowledged as a provincial priority and interest. MNR has the responsibility and legislative authority to be the lead ministry, but the obligation to take action should be reflected in the applicable policies and programs of all other ministries that have an impact on Ontario's biodiversity. The ECO believes that the Statements of Environmental Values (SEVs) of all prescribed ministries should specify this obligation, in addition to detailing the measures that will be put into effect to conserve biodiversity by each branch of government.

For ministry comments, please see page 216.

Recommendation 6

The ECO recommends that all prescribed ministries develop detailed action plans that specify the measures to conserve biodiversity that they will undertake.

2.9 – Land Acquisition Program Update

Over the past decade, the ECO has been monitoring the province's conservation land acquisition activities. Acquiring conservation lands, particularly in southern Ontario, is important for safeguarding biodiversity – by preserving habitat, connecting and restoring fragmented ecosystems and other environmental mechanisms. From our monitoring, we have documented four ongoing management issues:

- **Lack of administrative consistency:** Conservation land acquisition has been administered through various programs and initiatives under different names and using different criteria, by at least two different ministries or agencies of the provincial government: the Ministry of Natural Resources (MNR) and the Ontario Heritage Trust (OHT)[1]. The last such program that MNR operated was called the Ecological Land Acquisition Program (ELAP). The activities have almost always been carried out in conjunction with a not-for-profit organization, like a land trust or a conservation authority. The province's principal program in 2007/2008 was the Natural Spaces Land Acquisition and Stewardship Program (NSLASP), administered by the OHT.

- **Lack of transparency:** The track record of provincial ministries and agencies in posting information about land acquisition activities on the Registry has not been very good. For example, the NSLASP program was not posted on the Registry as a proposal to allow the public to comment on its criteria for land acquisition. Further, none of the individual property acquisitions has ever been posted to the Registry at the proposal stage.
- **Lack of funding:** Land acquisition programs have been chronically underfunded, given the large task at hand, primarily in southern Ontario.

---

[1] The current program (since 2006) is known as MNR's Land securement program (MLSP).

- **Lack of coordinated documentation:** The total monetary value of land acquisition activities is difficult to track on a year-to-year basis for the entire province (or even southern Ontario alone), as some ministries have made donations of lands to conservation organizations outside of any formal land acquisition program. As well, MNR provides funding to conservation organizations through agreements that are separate from the MLSP program.

Despite the various and separate mechanisms by which the province supports the acquisition of ecologically significant lands in Ontario, the ECO remains concerned about the level of funding that the province dedicates each year to these activities. In the ECO's 2005-2006 Annual Report, we noted that the province's land acquisition budget had remained virtually frozen, at approximately $5-6 million annually, for the previous decade. Meanwhile, the price of farmland in southern Ontario – so often the object of conservation land acquisitions, since farm property often includes significant natural heritage features, such as wetlands or woodlots – has increased dramatically over the past decade.

The NSLASP program covers southern Ontario only (roughly the area south of the Precambrian Shield) and is available to conservation bodies, as defined in the *Conservation Land Act*, including the Crown, a conservation authority, the council of a municipality, an incorporated corporation that is a registered charity, or a trustee of a charitable foundation.

The last provincial contribution to the OHT for land acquisition purposes was $6 million in 2005/2006. This fund was nearly depleted by the end of 2007/2008, after two cycles of grant applications. In early of 2008, the ECO contacted staff at the OHT to find out if there had been any new funding developments. OHT staff reported that no new funding had been dedicated to the NSLASP program for the 2008/2009 fiscal year. However, before the close of the fiscal year 2007/2008, MNR announced that it had provided funding of $5.47 million to various land acquisition agencies. Most of this funding was allocated to three conservation organizations (i.e., the Nature Conservancy of Canada, Ducks Unlimited Canada and the Ontario Land Trust Alliance), based on five-year standing agreements with MNR (see Table 1).

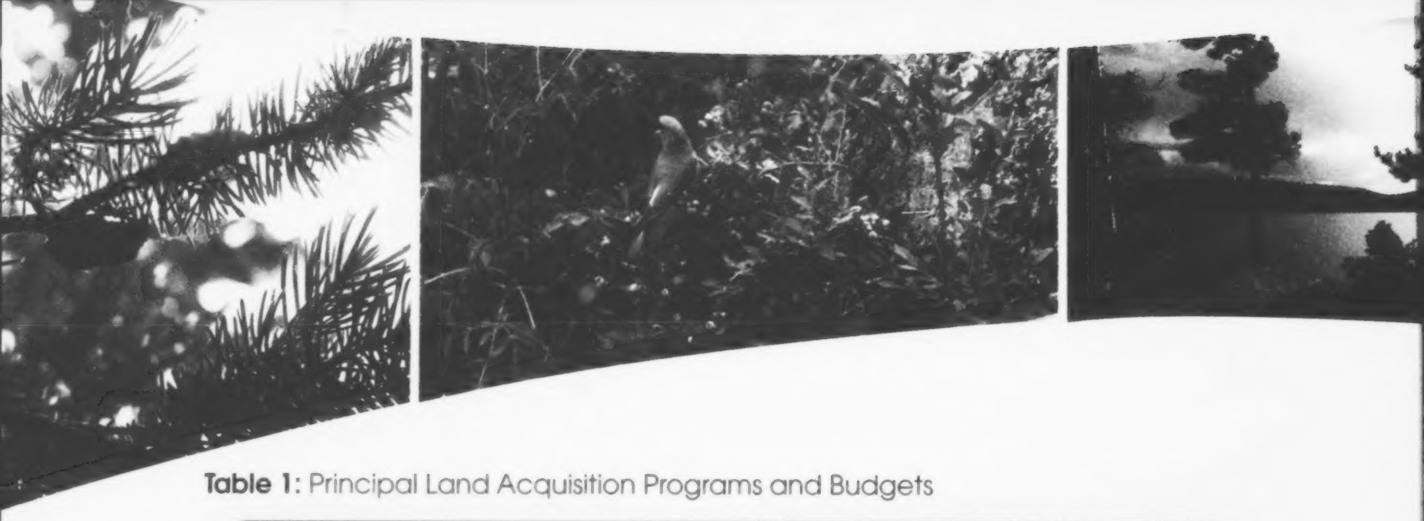


Table 1: Principal Land Acquisition Programs and Budgets

Fiscal Year	Program	Average Annual Budget
1989/99	NAPP[1]	$5 M
1999/00	NAPP	$5 M
2000/01	NAPP	$5 M
2001/02	NAPP	$5 M
2002/03	ELAP[2]	$5 M
2003/04	ELAP	$5 M
2004/05	ELAP (extended)	$2.5 M
2005/06	NSLASP[3] (OHT)	$5.7 M[4]
2006/07	MLSP (OHT)	No new funds (carry-over of the $5.7 M)
2007/08	MLSP	$5.47 M
2008/09	MLSP (OHT?)	$27 M over four years

Notes for Table 1

1. NAPP, Natural Area Protection Program
2. ELAP, Ecological Land Acquisition Program
3. NSLASP, Natural Spaces Land Acquisition and Stewardship Program
4. $4.5 M is available for acquisition, the other $1.2 M is for stewardship activities on newly acquired lands

A more stable and greater level of funding for land acquisition is critical because the target area of NSLASP is southern Ontario, an area of roughly 200,000 square kilometres, most of which is privately owned. The land in this part of the province is costly in real estate terms. Compare this with central and northern Ontario, where most land is under Crown control, which means the province could potentially protect lands, forests and important ecosystems without the need to make direct purchases. In contrast, the Toronto and Region Conservation Authority estimates that funding of $20 million per year over two decades is required in their watersheds alone for the acquisition of the necessary parcels of land to create continuous wildlife corridors and habitat, and to protect vulnerable waterways and river basin lands.

In the Ontario government budget, released in late March of 2008, MNR was provided with funding totalling $27 million over four years to acquire ecologically sensitive lands for conservation purposes. No other details were available as of August 2008.

ECO Comment

The ECO welcomes the announcement of a longer-term funding approach, but it remains to be seen whether all the allocated budgeted funds will be spent on land acquisition. While programs like ELAP had been allocated similar budgets in the past, the full amount was seldom spent on land acquisitions; this can happen if acquisitions cannot be completed before fiscal year-end, and the unallocated funds are returned to the Ontario treasury. This suggests that there is a need to expedite land acquisitions.

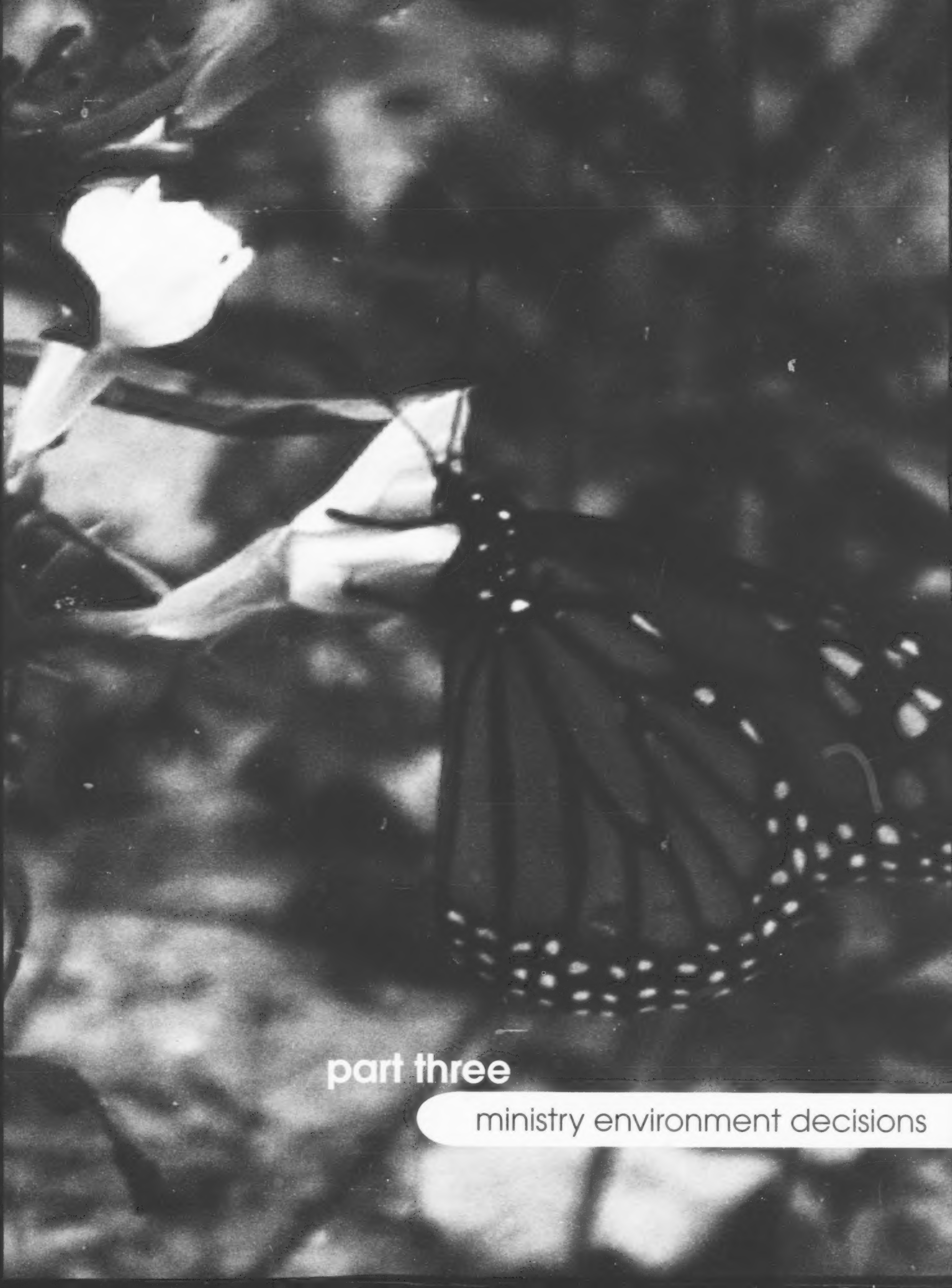
To expedite the process of land acquisition, MNR and OHT could modify their current funding formula. Conservation organizations must devote considerable resources to land acquisitions through a 50/50 matching funds arrangement; by reducing their contributions to 40 per cent or some other less onerous ratio the province would reduce the financial burden on their land acquisition partners. Most of these organizations are classified as charities by the Canada Revenue Agency and may experience difficulty in raising sufficient funds to meet the matching funds criterion and acquire property. In addition, MNR and OHT could also explore the possibility of guaranteeing mortgages or providing bridge financing for projects undertaken by a conservation organization in order to enable land acquisitions in a timelier manner.

The provincial government is a large landowner and some of these lands happen to have important natural heritage features. These lands are managed by the Ontario Realty Corporation (ORC), an agency that (since 2004) reports to the Minister of Public Infrastructure Renewal. When ORC is going through the disposition (preparation to sell) process, an opportunity is given to other ministries/agencies and municipalities to express an interest. This opportunity to express an interest only lasts for 15 working days. The ECO feels that MNR should work with ORC to determine which provincially owned lands contain natural heritage features prior to disposition in order to identify priority properties for acquisition. This could apply to ORC lands that are adjacent to areas that have already been identified as a park or to lands within the Greenbelt, Oak Ridges Moraine or Niagara Escarpment. This would lead to more 'good news' stories like the province's announcement in February 2007 of the addition of 1,500 acres of ORC lands to the Rouge Park (part of the Greenbelt) in the Greater Toronto Area.

For ministry comments, see page 217.

Recommendation 7

The ECO recommends that MNR and MCL modify the current funding formula for land acquisition programs to reduce the financial burden on conservation organizations.



part three

ministry environment decisions

Part 3 - Ministry Environmental Decisions

Each year, the Environmental Commissioner of Ontario reviews a sample of the environmentally significant decisions made by the provincial ministries prescribed under the *Environmental Bill of Rights*. During the 2007/2008 reporting year, 1,616 decision notices were posted on the Environmental Registry by Ontario ministries. Decision notices were posted for the following:

- 58 Policies
- 9 Acts
- 42 Regulations
- 1,517 Instruments

The extent to which the ECO reviews a ministry decision depends on its environmental significance and the public's interest in the decision. In the 2007/2008 reporting year, the ECO undertook 24 detailed reviews that appear in the Supplement to this Annual Report. The ECO has also summarized and highlighted 12 of these decisions in the following pages of this report.

3.1 - Canada - Ontario Agreement Respecting the Great Lakes Basin Ecosystem

Description

The *Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem* (COA) is a framework for implementing Canada's commitments under the *Great Lakes Water Quality Agreement* (GLWQA). In January 2007, the Ministry of the Environment (MOE) posted a proposal notice on the Environmental Registry regarding the renewal of COA for a three-year term and potential changes to its Annexes. In March 2007, MOE posted the draft 2007 COA for public comment. The official signing of the Agreement was announced on August 16, 2007. The agreement came into effect on June 26, 2007.

The 2007 COA is guided by the vision of a "healthy, prosperous and sustainable Great Lakes Basin for present and future generations." Through its four Annexes, the Agreement establishes the priorities and goals for the environmental protection and rehabilitation of the Great Lakes over its three-year term. Both governments committed to completing a review of COA by November 27, 2009.

(For a detailed review of COA please refer to Section 4.16 of the supplement of this Annual Report.)

Areas of Concern Annex

The Areas of Concern (AOC) Annex focuses on 15 Canadian AOCs suffering from pronounced environmental degradation or impairment of their aquatic beneficial uses. Since 1987, only two of Canada's original 17 AOCs have been delisted.

The 2007 Annex does not include AOC delisting, in itself, as a goal. Instead, it aims to complete priority actions that will lead to the delisting of four AOCs, and to make significant progress towards Remedial Action Plan implementation, environmental recovery and restoration of beneficial uses in the remaining 11 AOCs.

Harmful Pollutants Annex

The Harmful Pollutants Annex works towards the virtual elimination of legacy pollutants, such as PCBs, mercury, dioxins and furans, benzo(a)pyrene and hexachlorobenzene, as well as the reduction of ongoing sources of pollution, such as wastewater effluents and air pollutants. Other goals include reducing other harmful pollutants, and enhancing the knowledge necessary to reduce releases and mitigate risks.

Several planned results specify explicit reduction targets for legacy pollutants and criteria air pollutants. Other results, including the development of a program for the sound management of other chemical substances and the understanding of their impacts, do not mention targets, substances or sources.

Lake and Basin Sustainability Annex

The goals of this Annex are to promote sustainable management practices, to protect biodiversity, and to restore conditions in priority areas. An emphasis on stewardship is intended to: improve human well-being and aquatic ecosystem health; eliminate toxic substances and reduce pollutants; conserve genetic and biological diversity; and respond to invasive species. Two new areas of special focus are adaption to climate change and drinking water source protection.

Initiatives are applied on a basin-wide, lake-wide or watershed scale. Cooperative implementation between federal and provincial agencies and other Great Lakes partners is required to carry out commitments.

Coordination of Monitoring, Research and Information Annex

This Annex endeavours to undertake coordinated and efficient federal/provincial scientific monitoring and research, and to improve the collection and sharing of data, information and trends. These areas have been lacking in earlier agreements, making it difficult to evaluate initiatives or hold governments accountable.

ECO Comment

The ECO commends Ontario for signing the 2007 COA and reaffirming its commitment to rehabilitate and protect the Great Lakes basin ecosystem. The ECO has commented on preceding agreements in past reports, and remains concerned with the slow rate of progress, limited funding, minimal community engagement, and lack of transparency and accountability in meeting COA's goals.

The ECO believes that public involvement in the negotiation and the implementation of the commitments has been lacking. We encourage MOE to establish a Great Lakes stakeholders forum to facilitate meaningful engagement. It is vital for both governments to involve and mobilize local stakeholders, municipalities and ministries to achieve results.

COA suffers from chronic underfunding. The funding committed thus far is no where near Environment Canada's $3.5 billion estimate of funds needed to rectify problems that continue to impair beneficial uses in AOCs. The ECO commends Ontario for the additional funding it has contributed towards Randle Reef and the St. Lawrence River AOCs, but strongly urges Ontario to commit the necessary large-scale investments needed to restore beneficial uses in the remaining AOCs. The ECO also notes a persistent lack of transparency in the distribution of funds. It is still unclear how the millions of dollars Ontario pledged will be allocated and how the progress will be reported.

The ECO is concerned that many targets are not clearly defined and lack deadlines for achieving the results set forth in the Annexes. As such, it is difficult to ascertain objectively whether the signatories are meeting their commitments. The environmental problems that necessitated the drafting of the first COA persist, and are now compounded by other emerging pressures, such as climate change, increased development pressures and invasive species.

The ECO advises Ontario to draft, undertake consultation on, and implement detailed workplans with clear targets, timelines, sources of funding, and clearly articulated responsibilities for participating governments and stakeholders. This should be accompanied by a comprehensive results monitoring program, through which the information collected is made publicly available. In light of COA's chronic shortcomings, the ECO also suggests that COA progress reports be subject to independent review.

For ministry comments, see page 217.

3.2 – MOE's Financial Plans Regulation for Municipal Drinking Water Systems

On August 14, 2007, the Ministry of the Environment (MOE) filed O. Reg. 453/07, the Financial Plans Regulation under the *Safe Drinking Water Act* (*SDWA*). This new regulation sets out requirements for "Financial Plans," which all municipal drinking water systems will be required to prepare as early as July 2010 as part of their requirement to obtain a Drinking Water Licence under the *SDWA*. MOE also published a guidance document entitled "Toward Financially Sustainable Drinking-Water and Wastewater Systems," which sets out a number of guiding (though not mandatory) principles to assist municipalities in the preparation of their Financial Plans.

Following the May 2000 contaminated water tragedy in Walkerton, Justice Dennis O'Connor released his Report of the Walkerton Inquiry, which sets out strategies for preventing such a tragedy from reoccurring. Among his many recommendations, Justice O'Connor recommended that all owners of municipal drinking water systems should be required to submit a financial plan as a condition of obtaining their Drinking Water Licences, in order to ensure that drinking water providers can adequately finance the total costs of their systems.

In December 2002, in accordance with this recommendation, the Ontario government passed the *Sustainable Water and Sewage Systems Act, 2002* (*SWSSA*). The *SWSSA* was intended to address the financial sustainability of municipal water and wastewater systems in Ontario by requiring municipalities to:

- prepare a "Full-Cost Accounting Report" that assesses the total cost of providing its municipal water and sewer services (including its operating, capital, financing and source protection costs); and
- develop a "Cost Recovery Plan" that indicates how the system intends to recover the full amount of its costs.

Although the *SWSSA* received Royal Assent in 2002, no supporting regulations have ever been developed, and the Act has never been proclaimed in force. (For a review of the *SWSSA*, see pages 105-107 of the ECO's 2002-2003 Annual Report.)

The Financial Plans Regulation

In 2007, with the *SWSSA* still unproclaimed, MOE developed the Financial Plans Regulation under the *SDWA* to satisfy the financial plan requirement for Drinking Water Licenses. The Financial Plans Regulation requires all owners of municipal residential drinking water systems to prepare Financial Plans that detail the system's financial information projected forward for at least six years. The Financial Plans must include income statements (which set out revenues and expenses), as well as balance sheets (which include financial assets, non-financial assets, total liabilities, cash flow, etc.).

The Financial Plans must then be formally approved by the owner of the municipal system through a resolution of the municipal council (or the governing body if the municipality is not the owner). For new municipal drinking water systems, the Financial Plan must state that the financial impacts of the drinking water system have been considered, and the resolution must state that the drinking water system is financially viable. (For more detail on the Financial Plans Regulation, see Section 4.11 of the Supplement to this Annual Report.)

Implications of the Decision

The regulation is being used in place of the SWSSA

For the short-term, at least, the Financial Plans Regulation is being used in place of the *SWSSA* in defining the financial plan requirements for municipal drinking water systems. MOE has not made it known if the province's long-term intention is for the Financial Plans Regulation to replace the *SWSSA*, or if the Financial Plans Regulation is merely a transitional regulation until the province is ready to proclaim the *SWSSA* in force (or develop some alternate regulation or legislation).

Regardless, it is clear that the province is taking a more flexible and gradual approach to phasing-in the requirements for sustainable financial planning, than had originally been intended under the *SWSSA*.

The regulation requires full-cost accounting

The Financial Plans Regulation introduces a requirement for municipal drinking water system owners to undertake a "full-cost accounting" of their system to determine the true cost of providing safe water. The regulation requires municipalities to determine the full cost of operating their drinking water system, including the project-

ed long-term capital costs of repairing, improving and building new infrastructure. The full-cost accounting must also set out the system's total projected revenues; however, there is no requirement that those revenues be sufficient to cover the system's costs.

Full-cost accounting is a crucial first step in moving drinking water systems towards financial sustainability by:

- making municipalities more aware of the annualized investment costs of the infrastructure assets over their useful lives;
- encouraging better long-term planning for capital renewal and replacement; and
- providing a more informed basis for setting water rates.

Full-cost recovery is encouraged, but not required

Unlike the *SWSSA*, the Financial Plans Regulation does not include a requirement for "full-cost recovery," which Justice O'Connor described as the second critical component of financial sustainability. While full-cost accounting requires the municipal systems to prepare a balance sheet; full-cost recovery requires that balance sheet to actually balance. "Full-cost recovery" would require that a system's owner raise sufficient funds to cover its full costs and ensure that the system will be able to provide safe and sustainable drinking water for both the short and long-term.

While the regulation does not explicitly require full-cost recovery, it does state that all new systems must be "financially viable." Although the term is not defined, financial viability arguably suggests that new drinking water systems must achieve full-cost recovery. In addition, the regulation's supporting guidance document strongly encourages municipalities to collect sufficient revenues to cover all of their costs.

Full-cost pricing is encouraged, but not required

In addition to recommending that municipal systems implement "full-cost recovery" strategies, the guidance document also encourages (but does not require) municipal systems to introduce "full-cost pricing." Whereas "full-cost recovery" requires systems to recover the full costs of the water services by any means, "full-cost pricing" goes one step further by requiring the full costs to be recovered through customer water charges.

Full-cost pricing applies the user-pay principle by requiring those consumers who benefit from services to pay for them. In addition, charging water users appropriate, volumetric rates for the water services provided (typically through the use of water meters) can encourage water conservation.

Currently, most municipalities in Ontario do not charge consumers anywhere near the full costs for their water services. Rather, most municipalities heavily subsidize their water systems through other sources of revenue, such as property taxes or provincial grants. Most municipalities have also under-invested in their water systems creating a serious backlog of repairs and upgrades to the water infrastructure. Without a legal requirement to implement full-cost pricing, it is unknown to what extent municipalities will implement this – generally politically unpopular – recommendation to increase water rates.

No provincial approval

Unlike the *SWSSA*, which would require the Full-Cost Accounting Reports to be approved by MOE, the Financial Plans Regulation does not require the Financial Plans to be approved by the province. Accordingly, there does not appear to be any provincial control exercised over the quality or sufficiency of individual Financial Plans.

ECO Comment

Approximately six years after the province first passed the *Sustainable Water and Sewage Systems Act*, the ministry is finally implementing a requirement for municipal drinking water systems to develop Financial Plans. The Financial Plans Regulation puts into place a long overdue requirement for municipalities to develop a full accounting of their drinking water systems – the first step in moving municipal water systems toward financial sustainability. The Financial Plans should help municipalities make the fundamental link between asset management and financial planning, which will hopefully result in better long-term planning for capital renewal and replacement, as well as more appropriate setting of water rates.

It appears, however, that the Financial Plans Regulation is being used, at least temporarily, to replace the more comprehensive and prescriptive requirements developed under the *SWSSA*. The Financial Plans Regulation cannot reasonably be viewed as an adequate replacement for the *SWSSA*. Whereas the *SWSSA* would require municipalities to develop financial plans for both drinking water and wastewater systems, the Financial Plans Regulation only applies to drinking water systems. Where the *SWSSA* would require municipal systems to develop both a full-cost accounting plan and a full-cost recovery plan, the Financial Plans Regulation only requires a full-cost accounting plan. And, where the *SWSSA* would provide strong mandatory requirements, including a requirement for provincial approval of the financial plans, the Financial Plans Regulation provides a much more permissive and flexible approach.

The ECO is very disappointed that the new regulation does not include requirements for full-cost recovery and full-cost pricing. Full-cost recovery of a water system's total costs is necessary for the system to achieve financial sustainability and self-sufficiency. However, the necessary shift by municipal systems to full-cost recovery – to both overcome their enormous infrastructure deficits and to achieve financial sustainability – is bound to be unpopular with most municipal

residents and, thus, is unlikely to be undertaken on a voluntary basis. Accordingly, a mandatory and timely requirement for full-cost recovery is needed. The longer the province delays instituting such a requirement, the more likely that the existing infrastructure deficits will grow – potentially threatening the safety of the province's drinking water supply systems.

In addition, requiring municipalities to charge water users appropriate, volume-based rates for the water services provided can help encourage water conservation. Currently, most municipalities in Ontario charge artificially low water rates, providing a disincentive for consumers to conserve water resources. The ECO believes that there is significant room for most municipal systems in Ontario to raise water rates, which are generally quite low compared to many other jurisdictions, as well as compared to other household costs (such as cable and internet services).

It is still not clear whether the province intends that the Financial Plans Regulation replace the *SWSSA*, or whether the new regulation is merely the first step in a phased-in approach to requiring water systems to become financially sustainable. However, the ECO notes that the Financial Plans Regulation alone is unlikely to push most municipal systems towards achieving financial sustainability. Therefore, the ECO urges the ministry to follow up on the Financial Plans Regulation in a timely manner – by either proclaiming the *SWSSA* or developing some other comparable legislation or regulation – to ensure that financial sustainability is achieved for all municipal drinking water and wastewater systems in Ontario.

For ministry comments, see page 217.

3.3 – The Water Taking Charge Regulation

In August 2007, the Ontario government filed O. Reg. 450/07 – Charges for Industrial and Commercial Water Users – under the *Ontario Water Resources Act* (*OWRA*). This new regulation establishes a regulatory charge for the taking of water by prescribed commercial and industrial water takers.

Starting on January 1, 2009, all "phase one industrial or commercial water users" will be required to pay $3.71 for every million litres of water that they take each year. Although the authorizing provision in the *OWRA* allowed the charge to be applied to *any* commercial and industrial water taker, O. Reg. 450/07 prescribed only the following seven categories of commercial and industrial water takers that incorporate water into their products as subject to the charge:

- water-bottling facilities;
- beverage manufacturing facilities;
- fruit and vegetable canning or pickling facilities;
- ready-mix concrete manufacturing facilities;
- non-metallic mineral product manufacturing facilities;
- pesticide, fertilizer and other agricultural chemical manufacturing facilities; and
- inorganic chemical manufacturing facilities.

The government has stated that more sectors (such as the mining, pulp and paper, non-hydroelectric power, and recreational sectors) may be regulated in future phases, though no plans for a next phase have yet been announced.

The regulation states that the purpose of the water taking charge is to recover a portion of the costs that the province incurs in administering water management programs. The regulation also requires the charge rate to be reviewed periodically. In spring 2008, the government had already signalled that it intends to review the charge rate and look into "more appropriate" fees.

Implications of the Decision

The regulation introduces a partial cost recovery system

Currently, the government finances – out of general tax revenues – a large number of water management programs intended to protect Ontario's water resources. These programs include information-gathering programs (e.g., water quantity monitoring and water budget development), programs that regulate water withdrawals, and programs that support government partners (such as conservation authorities) in undertaking water research and management activities. All of these programs require substantial financing to cover a variety of costs, including staff wages, field work, equipment, educational materials and data management.

O. Reg. 450/07 establishes a partial user-pay system by requiring some water users to contribute to some of the costs of the provincial water management programs for which they help create the need and from which they undoubtedly benefit. However, the limited revenue that is expected to be generated from the "phase one" water taking charge (estimated to be about $18 million) is likely intended to cover only a small portion of the province's total costs for its water management programs. While MOE has not provided an accounting of government water-related costs, the ECO presumes that Ontario's water quality management programs relating to the phase one users must (or should) cost considerably more than $18 million.

Only a small percentage of water takers are being charged

The new water taking charges currently only apply to the prescribed "phase one" users, who collectively take less than two per cent of the total amount of water that is permitted to be taken in the province.

MOE selected the prescribed group of facilities as the first phase of users subject to the charge based on the fact that these facilities are all "highly consumptive" users (i.e., users who permanently remove significant amounts of water from the watershed). MOE deems these highly consumptive users to have the greatest impacts on the watershed, and therefore they create the greatest need for provincial water management programs. MOE also notes that these facilities all use water to produce private financial benefits through the sale of products or services derived, at least in part, from water.

Water taking charges are unlikely to provide environmental benefits

In addition to defraying the government's administrative costs, the *OWRA* also authorizes a charge to be established for the purpose of "(promoting) the conservation, protection and management of Ontario's waters and their efficient and sustainable use." Indeed, in the proposal document, the charge was initially called a "water conservation charge," and the promotion of water conservation and efficiency was cited as the secondary purpose of the charge. However, this secondary purpose is missing from the final regulation (and no explanation of this change was provided in the ministry's decision notice on the Registry), although MOE still maintains that the water charge may encourage water conservation.

Given the very low charge rate, and the small number of water users being charged, it is unlikely that the new water taking charge will have any real effect on water conservation or water use efficiency. Moreover the charge currently applies only to consumptive users that incorporate water into products and who have limited options to reduce water consumption other than by decreasing production and sales.

Furthermore, there is no indication that the revenue generated from the charge will be allocated to additional water management programs and/or increased staffing in the water management area. Rather, it appears that the new source of revenue will simply offset other program funding from the government's consolidated revenue fund.

ECO Comment

The purpose of O. Reg. 450/07 is purely one of partial cost-recovery – that is, to defray some of the government's costs of managing the province's water resources. The ECO fully supports this purpose, as well as the underlying principle that users should pay for the services for which they create a need and from which they benefit. However, the ECO believes that this regulation should have gone much further.

The new water taking charge, as established, will not meaningfully "promote the conservation, protection or wise management of Ontario's waters," despite the fact that this purpose is explicitly authorized by the *OWRA*. The very low charge rate of $3.71 per million litres of water is unlikely to create any real economic incentive for conservation – just a penny will buy almost three cubic meters of water. Nor is it likely that the new charge will result in any new or expanded water management programs.

In addition, the application of the charge to so few water takers will limit the benefits of the charge. While it is reasonable to phase-in the charge, the ECO notes that many sectors that were not included in phase one – including both consumptive and non-consumptive users – have a significant impact on the province's water resources. The ECO hopes that in future phases, MOE takes a broader approach in considering which sectors should be included in the regulation.

Moreover, even accepting that the sole purpose of the charge is to defray some administrative costs, the ECO believes that the scope of programs notionally covered by the charge is far too limited. The water taking charge should reflect the real proportionate costs of what the government truly is (or *should be*) spending on all water quantity management programs that relate to the charged sectors (including the costs of programs operated by partners, such as the conservation authorities). Accordingly, the ECO encourages the ministry, during its first review of this charge, to itemize the actual costs of the programs included in this regulatory framework, and to establish a fee that is both substantial and proportionate to the true administrative costs related to the charged sectors. This should also help to encourage water conservation as well.

Going forward, the ECO strongly encourages the development of a more substantial and comprehensive water taking charge. Nevertheless, the system for issuing water taking permits should continue to be based on the policy and scientific criteria in both the Water Taking Regulation and the ministry's Permit To Take Water Manual, rather than based on a capacity to pay, in order to ensure that ecosystem protection and the public interest continue to be paramount.

For ministry comments, see page 217.

Recommendation 8

The ECO recommends that MOE establish fees that are proportionate to the full administrative costs related to the government's water management programs.

(For more details on the new water taking charge, see Section 4.9 of the Supplement to this Report.)

3.4 – Environmental Penalty Regulations

In June 2007, the Ministry of the Environment (MOE) passed two new regulations – O. Reg. 222/07 under the *Environmental Protection Act* (*EPA*), and the corresponding O. Reg. 223/07 under the *Ontario Water Resources Act* (*OWRA*) – to support the implementation of the environmental penalty provisions contained in the *EPA* and the *OWRA*.

The concept of "environmental penalties" (EPs) was introduced into the *EPA* and *OWRA* in 2005 through the *Environmental Enforcement Statute Law Amendment Act, 2005* (*EESLAA*), as part of the government's plan to address the serious problem of industrial spills in Ontario. The EP provisions in the *EPA* and *OWRA* allow MOE Directors to issue orders to "regulated persons," requiring such persons to pay an administrative financial penalty in relation to a spill, unlawful discharge or other prescribed offence under those Acts. (For more information on the *EESLAA*, please refer to pages 102-107 of the ECO's 2005-2006 Annual Report).

The two new EP regulations, along with five new supporting guidelines developed by MOE, now provide the important details of how, when and to whom the EPs may be issued. The EP regulations also enable the implementation of the EP provisions. The first phase – which allows EPs to be issued for serious offences (such as a spill, limit exceedance, failure to report and failure to restore) – came into effect on August 1, 2007. The second phase – which allows EPs to be issued for less serious offences (such as a failure to sample, report and keep records) – comes into effect on December 1, 2008.

Implications of the Decision

Fewer spills and better responses

The goal of the EP regulations is to reduce the number of spills occurring, and minimize the harm that results when spills do occur. To achieve these goals, the ministry hopes that the imposition, or mere threat, of EPs will encourage regulated facilities to:

- take steps to prevent spills and discharges;
- take steps to mitigate the effects of spills/discharges on the environment and human health;
- implement environmental management systems; and
- take steps for the protection of the environment beyond the minimum legal requirements.

The EPs also follow through on the provincial government's "you spill, you pay" promise by ensuring that those who are responsible for the spills are the ones paying the penalty.

EPs only apply to MISA Facilities

The *EPA* and *OWRA* state that EPs may only be issued to a "regulated person." The EP regulations have defined a "regulated person" as a person who owns or operates a MISA (Municipal Industrial Strategy for Abatement) or MISA-like facility. Accordingly, EPs may only be issued to the approximately 148 industrial facilities that are currently included in the nine MISA sectors (i.e., the organic and inorganic chemical manufacturing, industrial minerals, metal mining, metal casting, iron and steel manufacturing, electric power generating, pulp and paper, and petroleum sectors), or to other new entrants into a MISA sector.

MOE stated that it chose to restrict the definition of "regulated person" to the MISA facilities because these facilities account for a significant portion of the reported spills to land and water each year. However, there are other major dischargers which have not been made subject to the EP requirements. For example, municipal sewage treatment facilities are significant contributors to water discharges, and were also originally intended to be a key part of the MISA program when it was created in 1986 (i.e., the missing "M" in MISA). However, MOE could expand the definition of regulated persons to include municipal facilities or other industrial sectors at a future time.

EPs only apply to prescribed offences relating to water and land

The EP regulations set out a restrictive list of offences for which EPs may be issued. The prescribed list includes offences that broadly relate to spills or unlawful discharges to water, as well as to land, but not to air.

EPs provide a new abatement tool

EPs add one more option to the array of abatement and enforcement tools available to MOE staff. The ministry's newly amended Compliance Policy (F-2), which guides ministry decisions regarding which tool(s) to use when responding to a potential offence, recommends the possible use of EPs for moderate to severe offences. The Compliance Policy also clearly states that the use of an EP does not preclude the ministry from also referring that same offence to MOE's Investigations and Enforcement Branch (IEB) for further investigation and possible prosecution. In fact, in the case of serious offences, the Policy now requires staff to refer the case to the IEB. This mandatory requirement to refer all serious offences to the IEB was added to the final version of the Compliance Policy in response to concerns expressed by environmental groups.

Because EPs are expected to be a faster, easier and less resource intensive option than court proceedings, EPs may be used in place of prosecutions in many cases and thus, may result in a reduction in the total number of cases prosecuted by MOE.

Calculation of the EP amount is strictly defined by the regulations

When the concept of EPs was introduced, there was considerable concern from some stakeholders that the EPs would be a form of judicial penalty and, thus, the application of EPs in conjunction with prosecutions would result in "double jeopardy" (i.e., a situation where a defendant is tried twice for the same offence), which is generally prohibited by common law. Therefore, in developing the EP regulations, the ministry has endeavoured to create a rigid and objective formula for calculating EPs, with a minimum of discretion, to ensure that the EPs are administrative penalties, and not judicial penalties.

The EP regulations, together with MOE's new "Guideline for Implementing Environmental Penalties," define in detail the manner in which MOE Directors must calculate the amount of the EP. The amount of each EP is based on:

- the "type" of offence (which is classified into three types – minor, moderate and major);
- the "seriousness" of the consequences of the offence; and
- other case-specific factors set out in the regulation, including the person's past compliance record, delays in compliance, the involvement of a toxic substance in the offence, and the duration of the offence.

The amount determined above may then be reduced:

- by up to 30 per cent if the regulated person has taken steps to prevent the offence and/or to mitigate its impacts; and
- by a further 5 per cent if the person had implemented a qualified Environmental Management System (EMS), such as a certified ISO 14001 system.

(For a more detailed discussion of how the EPs are calculated, see the related EP decision review in Section 4.5 of the the Supplement to this Annual Report.)

EPs may be reduced for "Beyond Compliance Projects"

To encourage facilities to be environmentally progressive, the EP regulations allow a reduction in the EP amount if a regulated person enters into an agreement with a MOE Director to invest in a "Beyond Compliance Project" (BCP) – a pollution prevention or reduction project that goes beyond what is required by law to prevent, eliminate or reduce the discharge of a contaminant into the environment. However, the person must invest at least three dollars in a BCP for every one dollar reduction of its EP amount. The high costs required to achieve a reduction in the EP may limit the extent to which this option is actually used.

SPILL REGULATIONS

In June 2007, concurrent with the passing of the two EP Regulations, MOE also passed:

The *Spill Prevention and Contingency Plans Regulation* (O. Reg. 224/07 under the *EPA*) – which supports the implementation of the EPA provisions that require all regulated persons (i.e., MISA and MISA-like facilities) to develop and implement spill prevention plans and spill response plans by September 1, 2008; and

Amendments to the *Classification and Exemption of Spills Regulation* (O. Reg. 675/98 under the *EPA*) which codified detailed reporting requirements for all persons reporting spills and discharges to MOE's Spills Action Centre.

(For more information on these regulations, see Section 4.5 of the Supplement to this Report.)

Public Participation & *EBR* Process

The ECO commends MOE on its thorough consultation process for the new regulations. Despite the extensive stakeholder consultation, a large number of industry groups still opposed the regulations. Many of these commenters felt that the EP system is patently unfair in that it provides penalties without an opportunity for defence, and is potentially doubly punitive. These commenters also felt that the permitted deductions (for preventative and mitigative measures, EMSs and BCPs) were all too low. Many environmental groups, on the other hand, supported the EP regulations, but expressed concern that the use of EPs may result in a reduction in prosecutions, and thus a weakening of regulatory compliance in the province. (For a detailed discussion of the issues raised by the commenters, see the related EP decision review in Section 4.5 of the Supplement to this Annual Report.)

ECO Comment

As noted in the ECO's review of the *EESLAA* in the 2005-2006 Annual Report (pages 102-107), the ECO strongly supports the development of EPs. The threat of a penalty for spills or unlawful discharges should persuade companies in Ontario to re-examine their processes and implement pollution prevention measures, which ultimately should help reduce the occurrence of spills and discharges. Further, when spills, unlawful discharges and other related offences do occur, the EP regime provides MOE with an important new tool to promptly and efficiently address those cases.

As noted in the ECO's 1999-2000 and 2005-2006 Annual Reports, EPs provide a number of advantages over prosecution. As MOE staff struggle with a lack of capacity to adequately enforce all of its laws (see the ECO's 2007 Special Report on capacity, "Doing Less with Less"), EPs should provide ministry staff with a faster, less resource intensive, and less costly means of bringing contraveners into compliance with provincial environmental laws.

However, the ECO believes that although EPs are an important abatement tool, EPs must not displace the role of prosecutions, which are a key enforcement tool in the ministry's overall compliance strategy. Studies have demonstrated that an emphasis on enforcement correlates with increased regulatory compliance, and further, that companies that have been prosecuted tend to allocate significantly more of their resources towards environmental protection than those that have not been prosecuted.

It is not yet known how the use of EPs will impact the decisions of the IEB and Crown prosecutors to investigate and prosecute alleged offences. Accordingly, MOE is required to conduct a five-year review of the EP program and its impact on the level of prosecutions. The ECO looks forward to reviewing this report, and encourages MOE not only to adjust enforcement strategies, if needed, based on the results of this report, but also to consider whether the EP regulations should be extended more broadly to other sectors (such as municipalities), and possibly to air as well.

Although the new EP regime is indeed complex, the ECO believes that the new EP regulations provide an effective regulatory framework that should hopefully prove to be both objective and transparent. The EP regulations provide detailed calculations that minimize discretion and ensure that penalties are fair and predictable. The ECO believes that MOE has provided a balanced approach to the calculation of deductions for Beyond Compliance Projects, EMSs and other preventative and mitigative measures. These deductions will hopefully encourage regulated persons to take appropriate steps to safeguard the environment, while ensuring that penalties continue to be substantial enough to act as a deterrent.

For ministry comments, see page 217.

3.5 – Amendments to Regulation 903, R.R.O. 1990 (Wells Regulation)

Background

All water wells in Ontario, including municipal and private drinking water supply wells, agricultural wells, commercial wells, industrial wells, geotechnical test holes and environmental monitoring wells, are governed by the *Ontario Water Resources Act* and Regulation 903.

Following the contaminated drinking water tragedy in Walkerton, Ontario, in 2000, the Ontario government appointed Justice Dennis O'Connor to conduct the Walkerton Commission of Inquiry and make recommendations to the government relating to safe drinking water and source water protection. Considerable evidence was presented at the Inquiry about the role of Regulation 903 in ensuring the proper construction and decommissioning of water wells. Justice O'Connor's recommendation to review and update Regulation 903 "to ensure that it requires best construction practices" prompted MOE to announce a provincial groundwater strategy. In April 2002, as part of the new provincial groundwater strategy, MOE posted a notice on the Registry for proposed amendments to Regulation 903. MOE provided a 60-day comment period, yielding 67 comments from stakeholders and the public. MOE also consulted with the water well industry on the proposed amendments.

Regulation 903 was subsequently amended by O. Reg. 128/03 and a decision notice was posted in April 2003. The 2003 amendments included new provisions relating to well tagging, annular seals, abandonment of wells, shallow works, disinfection and cluster well reporting. The ECO commented on the decision in our 2003-2004 Annual Report (page 110) and identified numerous concerns with the amended regulation. The ECO recommended that MOE "ensure that key provisions of the Wells Regulation are clear and enforceable," and "provide a plain language guide to the regulation for well installers and other practitioners."

In March 2007, in response to stakeholder concerns, the ECO's recommendations, and advice from the Advisory Council on Drinking Water Quality and Testing Standards (now the Ontario Drinking Water Advisory Council), MOE posted a proposal for further draft amendments to Regulation 903 on the Registry for public comment. The amendments were subsequently made in July 2007 by O. Reg. 372/07 and came into force on December 31, 2007.

The amendments made by O. Reg. 372/07 involved a significant re-organization of existing provisions and re-ordering of sections in Regulation 903 "to more closely follow the order of activities in a well's life cycle from siting the well through construction." O. Reg. 372/07 also made numerous other amendments intended to improve the clarity and workability of the regulation.

Of the substantive changes to Regulation 903, the most notable include:

- creation of a new class of well technician licence for installing monitoring, sampling, and testing equipment in wells and construction of test holes and dewatering equipment using non-powered equipment (Class 5 licence);
- new exemptions from the Wells Regulation for some types of wells and some low-risk well construction activities;
- new disinfection requirements; and
- expanded well abandonment provisions.

MOE indicated that once the amendments were finalized, the ministry would prepare a Best Practices Manual "to aid well construction industry practitioners in implementing the new requirements of the Regulation." As of August 2008, MOE had not posted a draft Best Practices Manual on the Registry for comment.

Implications of the Decision

The *OWRA* regulates a variety of well types, including wells to locate or obtain groundwater, and wells for testing or information gathering. Wells provide a direct conduit from the ground's surface to underlying aquifers. Poorly constructed, poorly maintained or unsealed abandoned wells, therefore, present a significant vector for contamination to aquifers and the drinking water that they supply.

With approximately 90 per cent of rural Ontarians dependant on wells to obtain their drinking water, and with an estimated 10,000 to 20,000 new wells constructed in Ontario each year, proper well construction and maintenance practices are critical to protecting groundwater resources and preventing contamination of drinking water for a significant portion of Ontario's population. In addition, with an estimated 500,000 to 750,000 unsealed abandoned water wells in Ontario today and perhaps an additional 6,000 wells being abandoned in Ontario each year, clear and enforceable well abandonment rules are vital to protect human health and the environment.

MOE has stated that the latest amendments to Regulation 903 will "strengthen protection of public health and safe drinking water supplies by helping to prevent contaminants from entering groundwater and other drinking water sources through poorly constructed wells."

In the past, the ECO has observed problems with Regulation 903 that fall generally into two categories: (1) interpretation and enforceability; and (2) environmental and health protection. The 2007 amendments to Regulation 903 should result in some improvements to the clarity, interpretation and enforceability of the regulation, as well as the regulation's role in safeguarding the environment and public health.

Process Issue

On August 25, 1998, MOE posted a proposal notice on the Environmental Registry (Registry No. RA8E0025) for "Proposed amendments to Regulation 903 (Water Wells) made under the *Ontario Water Resources Act*." The ECO noted that a decision notice had not been posted for this proposal in our 1998, 2000-2001 and 2001-2002 Annual Reports, and noted in the Supplement to our 2003-2004 Annual Report that the outstanding 1998 proposal notice "is potentially confusing to a member of the public who may be tracking this issue."

As of August 2008, the 1998 proposal notice remains posted on the Environmental Registry despite the fact that two more recent consultations on this regulation have been completed (in 2002 and 2007). To avoid further potential for confusion in the future, the ECO urges MOE to revise the 1998 proposal notice by posting a decision notice without delay, indicating it has been superseded by subsequent developments.

ECO Comment

Regulation 903 is one of the most important tools available to MOE to protect public health and the environment. For too long, Regulation 903 has been difficult to interpret, implement and enforce, exposing groundwater resources in the province to unacceptable and unnecessary risk. The ECO welcomes MOE's long overdue efforts to clarify and revise this poorly-written regulation and strengthen its environmental and public health protection functions through stricter well construction, disinfection and abandonment requirements.

On the whole, the ECO believes that these amendments will strengthen the regulation of wells in Ontario and, consequently, improve the protection of aquifers and drinking water. MOE addressed many of the deficiencies in the regulation that the ECO had identified in our previous Annual Reports. If MOE follows through with a clearly written and detailed guidance manual, well owners, installers and other practitioners will be better equipped to navigate and apply this complex regulation.

However, many of the public's concerns with the regulation remain unaddressed, and Regulation 903 will continue to present challenges for stakeholders across the board. The ECO is concerned that Regulation 903 is being used to address too many different issues, and the regulatory system created by Regulation 903 risks becoming unwieldy and unworkable. Further, without adequate resources devoted to wells and groundwater programs, including regular inspections and oversight, MOE will be unable to put the strengthened enforceability of the regulation into action.

For a more detailed review of this decision please see Section 4.8 of the Supplement to this Report.

For ministry comments, see page 217.

3.6 – Fisheries Protocols Undermined by Crippling Cutbacks

Two fisheries protocol decision notices were posted on the Registry during the 2007-2008 reporting period. The decision notice regarding "An Inter-jurisdictional Compliance Protocol for Fish Habitat and Associated Water Quality" (the "2007 Compliance Protocol") was posted in November 2007; the protocol provides direction for federal, provincial and municipal agencies with "enforcement and compliance interests in the protection of fish habitat and water quality." The agencies bound by the 2007 Compliance Protocol include: the federal departments of Fisheries and Oceans Canada (DFO), Environment Canada (DOE), Parks Canada, and Transport Canada; the Ontario ministries of Natural Resources (MNR), Environment (MOE), and Agriculture, Food and Rural Affairs (OMAFRA); and Ontario conservation authorities (CAs). The 2007 Compliance Protocol introduced a significant change in agency roles, transferring lead responsibility for enforcement and compliance from MNR to DFO. The transfer of leadership actually was put into practice in 2004, when the interim version of the compliance protocol was released.

The change in authority also applied to fish habitat impact reviews of provincial highway undertakings by the Ministry of Transport (MTO); MTO produced the "MTO/DFO/OMNR Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings" (the "2006 MTO Protocol") – the final decision notice was also posted on the Registry in November 2007 – to incorporate the change in authority. The 2006 MTO Protocol introduced another significant revision, one that allows MTO to "self-screen" projects for compliance.

Both protocols, the 2007 Compliance Protocol and the 2006 MTO Protocol, describe roles and responsibilities of the member agencies and guide users through a decision matrix. In the case of the 2007 Compliance Protocol, agencies are guided in their response to occurrences and complaints of potential contraventions of their fisheries legislation. In the case of the 2006 MTO Protocol, agencies and MTO service providers (consultants, contractors and contract administrators) are guided in how to comply with fisheries legislation while carrying out provincial transportation projects. The latter protocol, therefore, focuses on project review and approval.

A third protocol was released during the early part of the 2008-2009 reporting period that deals with project review and approval in relation to all projects, including those of MTO. It will be discussed in a future ECO Annual Report (see box).

PROPOSAL FOR A FISH HABITAT REFERRAL PROTOCOL

In May 2008, MNR posted a policy proposal for the "Fish Habitat Referral Protocol." This protocol directs the same agencies included under the 2007 Compliance Protocol for the review of projects "in and around water, where fish habitat may be affected." MTO is the only new member, as an agency without fisheries legislation, but with projects that may impact fish and fish habitat. The Fish Habitat Referral Protocol contains a brief description of MTO's separate protocol, illustrated with MTO's referral process flow chart. Other referral process flow charts outlined in the Fish Habitat Referral Protocol relate specifically to: agricultural drain classification, generalized *Canadian Environmental Assessment Act (CEAA)* screenings, the *Species at Risk Act* (*SARA*), Parks Canada, MNR, the *Crown Forestry Sustainability Act* and CA/DFO. Like the other protocols, the Fish Habitat Referral Protocol describes roles and responsibilities of the agencies involved. It also contains a risk management framework that provides the same basic instructions as the risk assessment matrix in the 2006 MTO Protocol. The ECO may review this new protocol in our 2008-2009 Annual Report.

The main piece of legislation addressed by the two protocols is the federal *Fisheries Act* (*FA*), the only federal statute with a primary goal of protecting fish and fish habitat. The *FA* contains very strong protection provisions:

- Section 35(1) prohibits activities that cause the harmful alteration, disruption or destruction (HADD) of fish habitat unless authorized by the minister. HADDs are authorized only when mitigation measures demonstrate "no net loss" of productive capacity of fish habitat.
- Section 36(3) prohibits the deposition of deleterious substances into water frequented by fish. For prosecutions under this section, it is sufficient to demonstrate potential to cause harm to fish.

The 2007 Compliance Protocol assigned DFO the lead role in enforcement for s.35(1), and for s.36(3) where the substance is sediment. DOE has lead responsibility for enforcement of s.36(3) where the substance is chemical in nature. MNR and MOE are required to carry out supporting roles: MNR in cases involving habitat destruction and pollution from sediment, and MOE in cases involving chemical pollution. The protocol defines the obligation of these two ministries as dependent on "available resources and capacity."

The 2006 MTO Protocol applies to all MTO projects and all fish and fish habitat, and pertains to the administration of s.35 of the *FA*. Deposition of deleterious substances is addressed by directing users to the MOE Spills Action Centre. Erosion and sediment control are addressed in a supporting guide; one of many "Environmental Standards and Practices" (ESP) documents released in 2006 and 2007 (see the relevant decision review in Section 3.11 of this Annual Report).

The 2006 MTO Protocol is also considered an ESP document, and other documents in this series support the implementation of the protocol. The "Environmental Guide for Fish and Fish Habitat" (the "Fish Guide") is the main supporting document, offering extensive details on the protocol process and related scientific information.

(The 2007 Compliance Protocol and 2006 MTO Protocols are discussed in more detail as decision reviews in Section 4.22 of the Supplement to this Annual Report.)

The two protocols are examples of the implementation of a federal government initiative called "Smart Regulation," announced during the Speech from the Throne in September 2002. The goal of this strategy is to streamline the regulatory process in order to improve Canada's position in the global market. In support of the strategy, DFO released its Environmental Process Modernization Plan (EPMP) in 2004. The EPMP streamlines regulation, primarily, through a risk management framework that concentrates efforts on projects with the greatest risk to fish habitat, conserving resources for "other activities like monitoring and watershed planning." MNR is also altering its practice. According to its website, the ministry is starting to develop "a formalized risk-based approach to compliance."

Low-risk assessment may explain the minimal enforcement action taken during an incident in the Township of Muskoka Lakes, when township road construction led to an application for review under the *Environmental Bill of Rights* (*EBR*). The applicant complained of an alleged HADD occurrence and the release of sediment and other substances. The incident occurred in 2004, the same year the interim compliance protocol was released. DFO, MNR and MOE responded and decided that the township had shown due diligence, despite the fact that silt fences were not installed properly and that consultants confirmed an associated plume in the downstream lake (for a more detailed review of this application please see Section 6.2 of the Supplement to this Annual Report).

MOE's response to another complaint in 2007 suggests that the Ministry may not have the expertise to fully address its protocol role. The complaint concerned a large chemical spill that entered a Greater Toronto Area watercourse known to support the most diverse fish community in the watershed. Among the fish in this community was a provincially threatened species. MOE responded promptly and evaluated the spill's impact, but its assessment was much different from the assessment made by a fisheries specialist from the local CA, who visited the site the following day. MOE reported the death of numerous minnows, while the specialist recorded thousands of dead fish, including the provincially threatened species and many non-minnow species.

Regulatory streamlining culminated in large DFO cutbacks that took effect between 2005 and 2007. Staffing in Ontario was reduced from 75 to 52 biologists and from 25 to nine fisheries officers. DFO biologists assess referrals of potential HADDs and determine mitigation measures required to protect fish and fish habitat, while fisheries officers respond to occurrence reports and take enforcement action. The Environmental Commissioner of Ontario (ECO) learned through correspondence with MNR that, "MNR was concerned about DFO's ability to deliver on its part of the Compliance Protocol, and raised this issue to DFO at the fall 2005 meeting of the Canada-Ontario Fisheries Advisory Board. DFO indicated that they would be able to meet their commitments of the Protocol, and thus it was decided to move forward with releasing the 2007 Compliance Protocol."

Providing MTO with the ability to self-screen its projects leaves DFO with less of a role in the 2006 MTO Protocol. According to the 2006 MTO Protocol and Fish Guide, MTO can proceed with undertakings that are at or beyond 30 metres of a watercourse (determined from the ordinary high water mark) without notifying DFO. MTO relies on maps to complete this exercise. If there is a watercourse within 30 metres, MTO must decide through self-screening whether: (1) a HADD is unlikely with mitigation; (2) fish and fish habitat sensitivity is low (based on MNR data); and (3) the project extent, duration and intensity are all low. If all three conditions are met, MTO assesses these projects as low risk, sends a "No HADD Notification Form" to both DFO and MNR "for information only," and proceeds with the undertaking. DFO may, however, "question MTO's decision." Projects likely to cause a HADD after mitigation, receive further investigation, followed by revisions to the mitigation requirements, the redesign of the undertaking and/or its relocation until a HADD is no longer likely. Through this process of assessment, mitigation and redesign, 90 per cent of MTO's projects are determined to be low-risk (i.e. unlikely to cause a HADD). HADDs are addressed with a compensation plan developed with DFO. As an example of an unacceptable HADD, MTO's Fish Guide offers "the installation of a new culvert over Species at Risk (SAR) habitat will be considered a HADD, and may be considered unacceptable by DFO unless all reasonable siting and design alternatives have been precluded."

Fewer resources are allocated to low-risk projects. They may be self-screened by MTO, require no fisheries specialist on-site, do not hold contractors responsible for their erosion and sediment

measures, and do not require post-construction monitoring. MTO and DFO perform joint annual audits, but only on five to ten per cent of projects. Maintenance contractors inspect all sites when a project ends to make sure everything is in place, but this involves much more than environmental factors. Construction contractors cover the costs of correcting their work up to the end of the warranty period (typically one year). In serious cases of non-compliance, MTO may issue an infraction notice and may, through this process, remove the contractor's eligibility to bid in whole or in part on future contracts. Three environmental infractions were issued each year over the past three years.

The ECO Annual Report 2004-2005 reviewed an environmental audit ordered by MOE in response to an application for review from the previous year of MTO's expansion of Highway 400 in the Muskoka district. The audit revealed numerous instances where highway contractors ignored rules. It also reported a lack of knowledge by all staff, including environmental inspectors. The audit recommended strengthening contract documents, building in penalties and providing training for all staff involved, including designers, contractors, contract administrators and environmental inspectors. It also recommended monthly inspection visits by DFO, MNR and MOE.

With federal agencies leading enforcement and compliance, contraventions of the *FA* are no longer subject to applications for investigations under the *EBR*. The ECO stopped forwarding applications of alleged *FA* contraventions to MNR and MOE in 2004 and directed potential applicants to contact the Commissioner of the Environment and Sustainable Development which accepts petitions related to *FA* enforcement and compliance. The Muskoka Lakes application, described above, was a valid application under the *EBR* due to alleged contraventions of provincial, as well as federal, legislation.

ECO Comment

The ECO commends provincial agencies for developing, with agency partners, fisheries protocols that clarify roles and responsibilities, but stresses that the protocols need adequate on-the-ground staffing to work. The ESP support documents produced by MTO are impressive resources for training and education that should greatly improve knowledge and understanding at MTO construction sites. The ECO is surprised that MTO did not require appropriate compliance monitoring to complement its ESP investment. The lack of properly skilled environmental inspectors at 90 per cent of MTO's undertakings greatly compromises the monitoring of fish and fish habitat compliance. The ECO strongly advises MTO to require fisheries specialists at all provincial transportation undertakings to support the intent of the 2006 MTO protocol.

The ECO is alarmed by the practice of assessing most activities as low-risk to fish and fish habitat and reducing associated enforcement under the guise of improving efficiency. Implementation of the two protocols in this way will increase the loss of fish and fish habitat. The ECO urges protocol agencies to promote the use of landscape-scale plans in assessing risk, so that broad-based ecosystem functions and potential cumulative impacts are taken into account. This data base should include small streams; such streams are critical components of a watershed, but are rarely featured on maps and are, therefore, not recognized in the current 2006 MTO Protocol process. With recent DFO staff cutbacks, a reliable foundation for decision-making becomes even more crucial.

Nine federal fisheries officers are not enough to enforce laws protecting fish and fish habitat in Ontario. The ECO strongly advises MNR and MOE to modify the 2007 Compliance Protocol agreement so that their responsibilities to protect fish and fish habitat for Ontarians are met. This may require changes to the 2007 Compliance Protocol, and MNR may have to re-assume the lead role in enforcing s.35(1) of the *FA* by signing a new agreement with DFO. The ECO also urges MOE to rectify any deficiencies in spill investigation caused by an absence of staff with proper skills in fish and fish habitat assessment.

A significant change in fisheries compliance in the past five years is that Ontario residents can no longer file applications for an investigation regarding alleged contraventions of the *FA*. In 2005, MOE strengthened s.30(1) of the *Ontario Water Resources Act* (*OWRA*), which should allow residents to take stronger actions under the *EBR* to protect water quality. The ECO urges MOE to ensure it develops policies on enforcement of s.30(1) of the *OWRA* that will partially address the gap left by the exclusion of the *FA*.

For ministry comments, see page 217.

Recommendation 9

The ECO recommends that MTO strengthen its environmental compliance and enforcement programs to ensure that contractors correctly implement the MTO/DFO/MNR current fish and fish habitat protocols.

3.7 – Legislative Brownfield Reform

On May 17, 2007, the Ontario government passed the *Budget Measures and Interim Appropriation Act, 2007* (Bill 187). The omnibus bill made amendments to a number of statutes, including a package of amendments designed to address identified barriers to brownfield redevelopment.

Background

The National Round Table on the Environment and the Economy describes a brownfield as an "abandoned, vacant, derelict or underutilized commercial or industrial property where past actions have resulted in actual or perceived contamination and where there is an active potential for redevelopment." Brownfield lands may need to be cleaned up before they can be redeveloped.

Redevelopment of brownfield sites benefits the environment by improving soil, water and air quality. The re-use of these sites also contributes to urban revitalization and curbs sprawl that would otherwise consume valuable green space, including agricultural lands. It is estimated that for every hectare of brownfield land used for redevelopment, 4.5 hectares of greenfield land are saved.

In November 2001, the Ontario government took the first step in a lengthy process to revise the province's brownfield law and policy regime with the enactment of the *Brownfield Statute Law Amendment Act, 2001* (*BSLAA*). The purpose of the *BSLAA*, which incorporated amendments to seven different provincial statutes, was to encourage redevelopment of brownfield lands in Ontario by providing: clear site assessment and remediation requirements; environmental liability protection for those involved in brownfield redevelopment; and planning and financial tools to facilitate the brownfield redevelopment process.

In 2004, the Record of Site Condition regulation (O. Reg. 153/04), made under the *Environmental Protection Act* (*EPA*), came into force. A Record of Site Condition (RSC) is a document prepared by a "qualified person" (QP) and filed with the Ministry of the Environment (MOE) to certify that a property has been assessed and meets the soil and groundwater standards applicable to the proposed use of the property. O. Reg. 153/04 sets out the details of the RSC process, including: site assessment requirements; who may be a QP; remediation standards and methodology; and requirements for completing and filing RSCs on the Environmental Site Registry (ESR). When it came into full effect on October 1, 2005, O. Reg. 153/04 completed the implementation of the brownfield regime established by the *BSLAA*.

2007 Brownfield Legislative Reform

Despite the progress achieved with the *BSLAA*, the government has acknowledged that issues relating to liability, financing and the regulatory process continue to act as barriers to brownfield redevelopment. The Bill 187 amendments, passed in May 2007, implemented components of brownfield legislative reform relating primarily to liability and regulatory framework issues, some of which are described below.

Amendments Related to Liability

Protection from Orders After Filing an RSC: Filing an RSC on the ESR affords a degree of immunity from environmental orders. However, the protection of an RSC may be lost in specified circumstances, which are commonly referred to as "RSC re-openers." Stakeholders argued that the broad scope of RSC re-openers created uncertainty about the liability risks of brownfield redevelopment. Bill 187 made several amendments to narrow the scope and application of RSC re-openers.

Liability Protection for Those Undertaking Remediation Work: Before Bill 187, a person who conducted a site investigation at a property was not, for that reason alone, subject to specified environmental orders relating to the property. Bill 187 extended this provision to apply to those undertaking remediation work at a property as well.

"Good Samaritan" Mine Rehabilitation: Amendments to the *Mining Act* provide protection from specified environmental orders for those who voluntarily rehabilitate abandoned mine hazards on Crown lands.

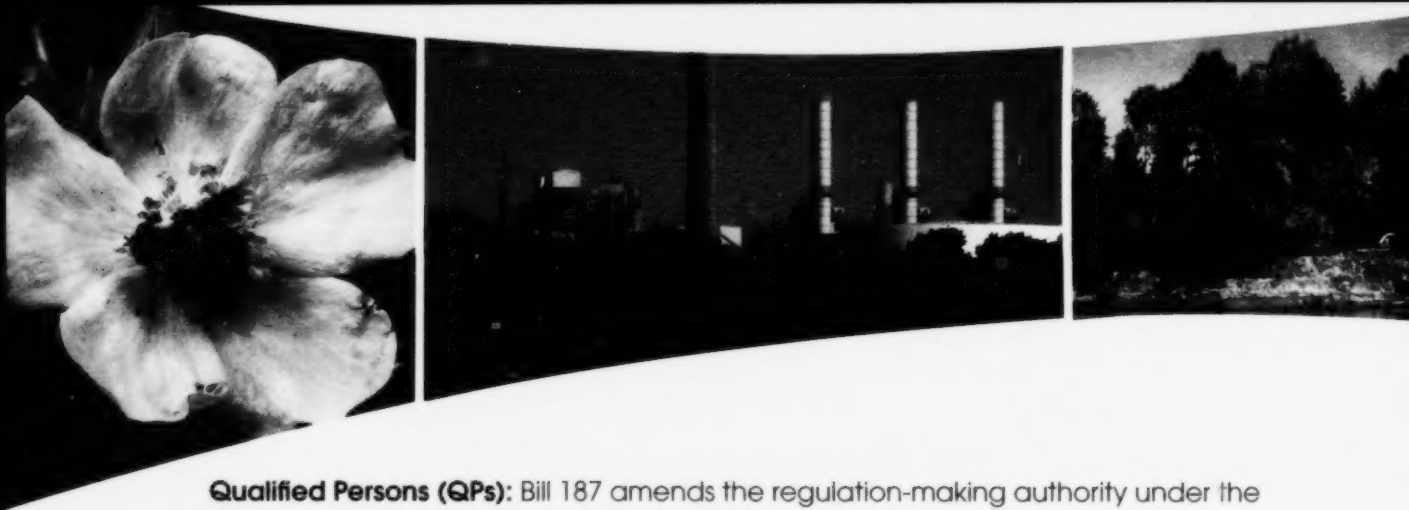
Municipal Reliance on RSCs: Amendments to the *EPA* provide municipalities and conservation authorities with immunity from civil liability for relying on, in the exercise of their powers, inaccurate RSCs filed on the ESR.

Horizontal Severance: Horizontal severance has been used as a tool to sever the surface of a property from the land below, thus protecting a purchaser of the surface land from liability for historic subsurface contamination. In response to concerns that horizontal severance was being used to avoid responsibility for cleaning up contaminated lands, the proposal notice originally proposed to ban horizontal severances. However, as a result of strong stakeholder opposition, Bill 187 instead amended the *EPA* to require environmental site assessments conducted under the brownfield regime to address the "land or water on, in or under the property," thus capturing both surface and severed subsurface parcels, regardless of legal ownership.

Escheats: Amendments to the *Proceedings Against the Crown Act* and the *Escheats Act* alleviate liability and economic risks to the Crown that may arise in taking action to address contamination on escheated (abandoned) properties.

Amendments to the Regulatory Framework

RSC Pre-filing Review: Before Bill 187, any MOE audits of RSCs were conducted after an RSC was already filed and posted on the ESR. This led to concerns that planning and development approvals or financing could be delayed indefinitely, even after an RSC was filed, if that RSC was later audited by MOE. To respond to these concerns and concerns about the quality of information contained in RSCs, amendments to the *EPA* created a new two-step RSC process – yet to be implemented, as of August 2008 – that will require an RSC to be "submitted for filing" before it is filed. RSCs that do not meet regulatory requirements will not be filed. RSCs that, following a discretionary pre-filing review by the Director, contain prescribed defects, will not be filed on the ESR until the Director is satisfied that there is no longer a defect.



Qualified Persons (QPs): Bill 187 amends the regulation-making authority under the *EPA* to support potential changes to the QP regime, including prescribing an approval process for QPs and providing for revocation or suspension of approvals and a corresponding appeal process.

Other Amendments: Bill 187 made additional amendments to the *EPA* related to correction of errors in an RSC, types of notices to be filed on the ESR, and RSC report retention requirements, among other things.

In addition to the regulatory changes made by Bill 187, amendments to O.Reg 153/04 were put in place on April 1, 2008 to further define professional requirements for QPs. (For more detail, please see Section 4.1 of the Supplement to this Report).

ECO Comment

The key challenge underlying brownfield law and policy-making is the need to strike a balance: eliminating obstacles to brownfield projects, while still protecting the environment and the broader public interest. Overall, the ECO believes that Ontario's efforts to revise and refine its brownfield laws and policies through Bill 187 strike this balance.

The ECO is pleased that the government is taking steps to further reduce the liability burden on those involved in brownfield redevelopment. The ECO has noted specifically the need to minimize liability risks associated with off-site migration of historical contamination after an RSC is filed. These amendments significantly narrow the application of RSC re-openers to cases where there is risk of harm to the environment or surrounding property uses, and also make a greater distinction between polluters and non-polluters. However, Bill 187 did nothing to relieve civil liability risks, referred to by some as the "liability chill," for proponents of brownfield redevelopment.

The ECO questions whether the amendments aimed at preventing abuse of horizontal severances will benefit the environment. Horizontal severance was a tool that innocent purchasers could use to redevelop brownfield lands without assuming liability for subsurface contamination that they did not cause. While the ECO supports the government's efforts to ensure that horizontal severances are not used to avoid responsibility for cleaning up contaminated lands, the ECO is concerned that the ultimate effect of these amendments may simply be that fewer brownfield sites will be returned to productive use.

The ECO is pleased that the quality and scope of information to be posted on the ESR will be enhanced through the RSC pre-filing review process, corrections to RSCs and notices posted by the Director. It is important for Ontarians to have access to the best available information on the state of properties for which RSCs are filed.

Finally, development of an RSC pre-filing regime that enhances confidence and predictability in the process is commendable. Whether the new regime will accomplish its intended purpose will depend on the details of its implementation, particularly those related to timeframes and deadlines. The ECO is concerned that the new regime, which will more closely resemble other MOE approval processes, will result in delays to RSC filings unless MOE has adequate resources available to efficiently and effectively administer the process.

For a more detailed review of this decision, see Section 4.1 of the Supplement to this Report.

For ministry comments, see page 218

3.8 – Developing an Odour Policy Framework

In 2005, the Ministry of the Environment (MOE) announced that it would be developing an Odour Policy Framework, which would clarify requirements when industry applies to obtain an air approval certificate and ensure the selection of appropriate odour abatement options. It would also help MOE deal with odour complaints.

Although MOE is still developing the framework, some of the technical aspects have been settled, including the method for establishing odour-based air quality standards for compounds and the time period over which an odour must be perceived in order for the odour-based standard to apply. In addition, it has been decided that the new odour-based standards will apply only to locations "where human activities regularly occur at a time when those activities regularly occur"; this is a new factor in applying a point of impingement (POI) air standard.

In August 2007, the Ontario government amended O. Reg. 419/05, Air Pollution – Local Air Quality, under the *Environmental Protection Act* (*EPA*), to include new odour-based standards for three compounds using the new POI criteria for odours. (For the complete text of this review, please refer to Section 4.3 of the supplement to this Annual Report.)

Regulation of air quality

From the 1970s, the *EPA*, the General – Air Pollution regulation (R.R.O. 1990, Regulation 346) under the Act, and related policies have been used to manage air quality in Ontario. Air quality standards, guidelines and ambient air quality criteria (AAQC) were based on health and environmental considerations, but were sometimes relaxed due to socio-economic and technical considerations. In 2005, O. Reg. 419/05 was passed, replacing and enhancing parts of Reg. 346 and introducing effects-based air quality limits based on health and environmental impacts alone. MOE decided to carry forward the odour-based standards from Reg. 346 while it develops an Odour Policy Framework. The first position paper on the Odour Policy Framework was released in April 2005, and the second position paper was released in June 2006 for public consultation. For the ECO's review of O. Reg. 419/05, refer to our 2005-2006 Annual Report, pages 89-96.

Managing odour is challenging

Due to great variability in individual odour perception and preferences, as well as technical difficulties in attempting to quantify odour levels, it is challenging to set enforceable standards. One person's perception of odour can be quite different from another person's and can vary over time. Some people can become less sensitive after repeated exposures to an odour, while others become more sensitive and less tolerant. In addition, some people may enjoy a particular odour (e.g., the smell of roasting coffee or deep-fried chicken), while others may find the same odour annoying or sickening and complain of a wide variety of health effects. The courts have ruled that medical evidence, such as doctors' notes, provides strong support for claims of human health effects when an adverse effect is subjective in nature.

Further complicating the assessment and control of odour problems, one odour may mask another odour, weather and wind patterns can affect dispersion, and the time of day and season of the year can influence whether or not anyone complains about an odour. Odours emitted on a winter's night in a relatively unpopulated area are unlikely to result in complaints, while strong odours wafting through a residential neighbourhood on a warm summer afternoon will surely engender dozens of complaints.

In general, MOE staff do not respond to odour complaints. MOE has advised the ECO that it places more emphasis on repeated complaints from a source and refers some odour complaints, such as odours from a residence (e.g., roof tarring) or a farm, for follow-up (municipalities, OMAFRA, etc.). MOE also advised that it does "follow up on complaints, and documents complaints and abatement strategies in a ministry database."

Summary of the two Position Papers and Public Consultation

The first position paper (PA05E0007) on the Odour Policy Framework was posted on the Registry for a 60-day comment period and the second position paper (RA06E0006) was posted for a 102-day comment period. In the two position papers, MOE outlined the components of a proposed Odour Policy Framework and explained that the impact of an odour event can be influenced by five factors – the frequency (F), intensity (I), duration (D), offensiveness (O) and location (L) of the event. All of the FIDOL factors can be measured quantitatively, except offensiveness, which is described using subjective terms, such as fishy, oily, sewage, garlic, rotten eggs, bakery, etc.

Many commenters were very concerned that the subjective nature of odour would pose some significant management challenges and suggested that odour should not be regulated. In contrast, a member of the public advised that "air free from offensive and sickening odours" is a right, not a privilege.

MOE discussed two options for setting short-term odour-based AAQC for compounds using data from the American Industrial Hygiene Association and ORTECH studies. Under Option 1, the AAQC for each compound would reflect the level at which 50 per cent of the general population can detect the odour. Under Option 2, the AAQC determined under Option 1 would be adjusted upwards or downwards based on the level at which 10 per cent of the general population would be expected to complain. Option 2 would result in a more stringent AAQC for a more offensive odour and a less stringent AAQC for a less offensive odour. Option 1 was chosen by MOE as the basis for setting odour limits. The Region of Peel preferred Option 2, noting that many people would still be able to detect an odour under Option 1 conditions and potentially complain. MOE explained that highly offensive and high-intensity odorous compounds, such as total reduced sulphur, would be subject to odour-based standards, which are enforceable; whereas, less offensive and intense compounds, such as toluene, would be subject only to guidelines, which are not generally enforceable.

According to an informal survey done by MOE, people will tolerate an offensive odour for only about 10 minutes before complaining. On this basis, MOE decided to make it an offence to exceed a 10-minute odour-based standard for a compound at points of impingement frequented by humans (including residences, schools and day care centres) more than 13 times per year. In response to some comments, MOE agreed that the POI should only refer to locations where people spend significant amounts of time. It did agree to the suggestion that only exceedances resulting in complaints should be counted and the time of day and year be considered. The Region of Peel, however, thought that the maximum number of allowed exceedances before it is deemed an offence has occurred was too high.

Although the majority of odour complaints are caused by mixtures, which are comprised of multiple compounds that may be interacting with each other, affecting the overall odour properties, MOE decided that more work was required before it could set appropriate limits for mixtures.

In two related decisions, MOE amended O. Reg. 419/05 to include 10-minute odour-based standards for three highly odorous substances or classes of substances: total reduced sulphur (TRS), hydrogen sulphide (H2S), and mercaptans. Facilities will be required to comply with the new standards by February 1, 2013 (at the latest) at those POIs "where human activities regularly occur at a time when those activities regularly occur" based on actual measurements. Since many commenters were concerned that the concept of sensitive receptors (locations where human activities occur) would introduce ambiguity into the process, MOE agreed to develop guidelines for identifying POIs "frequented by humans."

ECO Comment

The ECO commends MOE for taking on this challenging and important initiative. MOE has made some significant decisions that will influence how odour is managed. The benefits may not be immediately apparent, but are likely to accrue long-term. Effective odour management is becoming increasingly important as residential development and other sensitive uses are located closer to odour-producing facilities in order to accommodate growth. Also, odours are not just annoyances – they can have health effects and indicate serious air emissions are occurring. Consideration of the FIDOL factors will enable MOE to set odour-based limits that more closely reflect a contaminant's odorous nature and should reduce the number of complaints eventually. A stronger regulatory and policy framework will make it easier for MOE to add enforceable odour-based requirements to air approvals and to investigate odour complaints. However, the position papers make no mention of a formal odour complaint management system, which the ECO believes is required, and without which, MOE will not know if it has achieved its objective of reducing the number of odour complaints overall.

The ECO also believes that land-use planning decisions must include greater consideration of odour impacts. Appropriate siting of residential areas and other sensitive uses, and odour-emitting facilities, taking into consideration prevailing winds, land forms, other odour-emitting sources in the area and separation distances, is among the most effective tools available to minimizing or even preventing odour complaints.

When O. Reg. 419/05 was implemented in 2005, the ECO was concerned that MOE may lack the capacity to manage and implement the new air regulation. Completing the odour policy framework and implementing and enforcing odour limits add to MOE's workload. The ECO will continue to monitor the operating budgets for MOE's Air Program and enforcement activities, both of which were increased in 2008/2009, and progress on updating air quality standards and odour-based limits.

For ministry comments, see page 218.

3.9 – Burning of Used Oil in Space Heaters is Banned in Southern Ontario

In January 2007, the Ministry of the Environment (MOE) announced that, effective June 1, 2009, a ban on burning used oil in space heaters in southern Ontario would take effect. According to MOE, the ban will "protect health, improve air quality, (and) encourage recycling." Many of the affected facilities are auto repair shops and auto and truck dealers that burn oil obtained from vehicular oil changes as an inexpensive and convenient means of heating their facilities and disposing of their used oil. As a result of the ban, MOE anticipates that affected facilities will send their used oil to be re-refined, a process that produces high quality oil products that can be repeatedly re-used.

Prior to this ban, about 500 facilities located in highly urbanized southern Ontario had obtained approvals from MOE to burn an aggregate of about seven million litres of used oil annually. MOE contends that, in the absence of a ban, the volume of used oil burned in space heaters could triple as heating costs continue to increase. Since space heaters operate without emission controls and at temperatures that are too low to completely combust certain contaminants, significant increases in the volume of used oil burned would also result in significant increases in the greenhouse gases and other contaminants, such as arsenic, lead, sulphur, polycyclic aromatic hydrocarbons (PAHs) and particulates, being released to the air.

The ban takes the form of an amendment to the General - Waste Management regulation (Reg. 347, R.R.O. 1990), under the *Environmental Protection Act* (*EPA*). The ban applies to only those combustion units that are used to heat enclosed areas for the comfort of humans or to provide a suitable temperature for materials, including plants and animals. The ban does not apply in northern Ontario where, according to MOE, used oil collection services are limited.

Managing Used Oil

Almost 80 per cent of the 215 million litres of used oil generated annually in Ontario is collected, one of the highest collection rates in the world. Some of the collected used oil is burned in cement kilns that have prescribed pollution controls in place. Approximately 75 million litres is re-refined by Safety-Kleen in Breslau, Ontario, and another 75 million litres are exported each year. An unknown amount is dumped illegally, polluting our soil and water.

With this ban, an additional seven million litres of used oil should be available for re-refining, for burning in facilities with pollution controls, or for export. However, the environmental benefits of this ban are difficult to estimate. The net reduction in emissions of greenhouse gases and contaminants will depend on which replacement heating option affected facilities choose and whether or not they send their used oil to a re-refiner, to be burned in a facility with adequate pollution controls, or for export.

Public Participation & *EBR* Process

MOE received 117 comments in support of the proposed ban. Many members of the public were concerned that emissions from space heaters would cause cancer, and damage respiratory and reproductive systems. Several commenters suggested that the ban be extended to northern Ontario, noting that northerners deserved the same level of environmental protection as southerners. Two industry representatives advised that they collect used oil in parts of northern Ontario. Since about half of the used oil generated in Ontario is not tracked, some commenters suggested that Reg. 347 be amended to eliminate the loophole that allows some haulers of used oil to operate without complying with the regulation's manifest requirements for reporting waste shipments.

MOE also received 441 comments from stakeholders opposing the ban; many were concerned that the motivation for the ban was political and not based on science, and that their heating costs will increase since alternative heating options are more expensive. Many stakeholders complained that they had not been consulted prior to MOE announcing the ban.

ECO Comment

This ban was long overdue and should send a signal to used oil generators that the provincial government considers re-refining the most appropriate approach to managing used oil and that burning it in space heaters is not an acceptable option.

However, the ECO is troubled by MOE's failure to provide verifiable evidence to counter stakeholder concerns that the ban was political, not scientific, and by confusion over MOE's statements of the environmental benefits. Since affected facilities are not required to send their used oil to be re-refined, some of the anticipated benefits may not be achieved, and because of the reporting loophole in Reg. 347, we still won't know how much used oil is being collected from affected facilities, nor will we know whether it's being managed appropriately or being dumped illegally. The ECO urges MOE to address the regulatory loophole and to develop an education program that encourages the re-refining of used oil over other management options.

In addition, MOE did not provide any scientific justification to support its decision to exempt northern Ontario from the ban. The ECO urges MOE to determine if the ban could be extended to larger municipalities in northern Ontario, to include at least those where collection services currently exist.

Lastly, MOE's handling of stakeholder consultation was clumsy, meeting with them only after the ban was announced and giving some stakeholders only days to respond. MOE then repaired some of the damage by extending the deadline for comments. The ECO notes that the minimum consultation requirements defined in the *EBR* are not intended to replace appropriate stakeholder consultation. (For the full text of the ECO's comments on this decision, refer to Section 4.7 the Supplement of this Annual Report.)

For ministry comments, see page 218.

3.10 – Municipal Hazardous or Special Waste (MHSW) Program Plan

On February 19, 2008, the Minister of the Environment approved the Municipal Hazardous or Special Waste (MHSW) Program Plan (the "Plan") that was developed under the *Waste Diversion Act* (*WDA*) to improve diversion – through reduction, reuse and recycling - of hazardous and special waste materials. The Plan will make it easier for consumers, as well as some industrial, commercial and institutional (IC&I) facilities, to take waste paints, solvents, pesticides, batteries and other MHSW to collection points for reuse or recycling. In the absence of convenient diversion services, these materials have often been improperly landfilled, incinerated or dumped onto the ground or into sewer systems, wasting valuable natural resources and contaminating our air, soil and water. Even in very small quantities, MHSW is by definition toxic, corrosive, flammable and/or explosive and requires special handling to ensure the safety of workers and the public and the health of the environment. (For a more detailed review of this decision please refer to Section 4.17 of the Supplement to this Annual Report.)

This five-year Plan will be funded by brand owners and first importers of products that end up as hazardous or special waste. The Plan, commencing July 1, 2008, targets the Phase 1 wastes listed in Table 1. The Phase 2 materials are the next priority for plan development.

Table 1: Designated MHSW Materials in Phase 1 and Phase 2

Phase 1 Implemented July 1, 2008	Phase 2 Implementation date to be determined
• Paints and coatings, and containers in which they are contained • Solvents, and containers in which they are contained • Oil filters after they have been used for their intended purpose • Containers that have a capacity of 30 litres or less and that were manufactured and used for the purpose of containing lubricating oil • Single use dry cell batteries • Anti-freeze, and containers in which they are contained • Pressurized containers such as propane tanks and cylinders • Fertilizers, fungicides, herbicides, insecticides or pesticides, and containers in which they are contained	• Batteries other than single use dry cell batteries • Aerosol containers • Portable fire extinguishers • Fluorescent light bulbs and tubes • Pharmaceuticals • Sharps, including syringes • Switches that contain mercury • Thermostats, thermometers, barometers or other measuring devices containing mercury

Background

In Ontario, the General – Waste Management regulation (R.R.O., Regulation 347), made under the *Environmental Protection Act* (*EPA*), sets out the requirements for the management and tracking of hazardous waste from generation to disposal. Since 1985, generators of hazardous wastes that exceed the small quantity exemptions in the regulation have been required to register with the Ministry of the Environment (MOE) and to use approved haulers and disposal facilities. The small quantity exemptions allow the public and some small businesses to generate and haul their hazardous waste to municipal transfer stations without the administrative burdens that are placed on large volume generators.

The *WDA*, enacted in 2002, promotes the reduction, reuse and recycling of designated wastes. Brand owners and first importers of products that become designated wastes are called "stewards" and can join together to establish an industry funding organization (IFO). The IFO must be incorporated by Waste Diversion Ontario (WDO) and is responsible for developing and administering the waste diversion plan for the designated waste and for funding the plan with fees charged to the stewards. Stewardship Ontario (SO) is the IFO for MHSW.

According to a 2005 study, all residents in southcentral Ontario had some access to MHSW collection services, unlike many residents in eastern and northern Ontario. Municipalities cited cost as the primary reason for limiting their MHSW collection services.

MHSW Program Plan Summary

The Plan includes elements that are common to all Phase 1 materials, such as promotion and education, research and development, market development and performance benchmarks. One of the key elements is the launch of a public awareness program to encourage consumers to "buy only what is needed, use it up, (and) dispose of residue and container responsibly." The Plan also includes diversion plans for each type of MHSW in Phase 1 that outline:

- the current collection, diversion and disposal services;
- potential diversion options;
- barriers and opportunities to increase diversion; and
- targeted annual diversion rates.

Under the Plan, the quantities of MHSW materials sold in Ontario, collected and diverted annually will be tracked to determine if reduction efforts are effective, to calculate annual stewardship fees, and to measure performance of the program.

The total cost for Year 1 of the Plan has been calculated to be $28.4 million or $1.23 per kilogram diverted, which will be paid by stewards through material-specific fees. For example, a first importer of paint will be charged a material-specific levy of $0.358 for each 3.78 litres of paint it sells in Ontario. Municipalities will continue to be responsible for the full cost of collection activities for all MHSW materials that they manage, but will be compensated for their post-collection costs. The Plan includes $210,000 for MOE over the first five years for enforcement purposes should enforcement be required.

According to the Plan, the collection rate is expected to increase from 32 per cent in 2007 to 62 per cent in 2013, and the diversion rate from 28 per cent in 2007 to 56 per cent in 2013. These targets were established based on collection and diversion estimates for 2007, annual population growth and the anticipated effectiveness of diversion initiatives. Critical to achieving these targets is improving access to collection services for all Ontarians, which is expected to more than double in Year 1 under the Plan.

Public Participation & *EBR* Process

MOE posted the proposal on the Registry for a 30-day comment period and received 28 written comments.

Commenters had concerns about the operational efficiency and administrative burden of the Plan, noting that the various product stewardship programs should be harmonized. Associations representing automobile manufacturers advised that tracking components of a new vehicle (such as an oil filter) as they move back and forth across national borders during assembly and manufacture is very complicated and that they already had implemented source separation programs for their MHSW. Commenters also urged MOE to initiate Phase 2 quickly to reduce the administrative burden of managing MHSWs under different systems.

Two commenters suggested that material-specific levies should be based on the waste's toxicity. For example, the levy for batteries containing mercury should be higher than for non-mercury containing batteries, to reflect the potential to cause environmental harm. Several commenters were concerned that including IC&I wastes in the program will put people at risk and contaminate the residential waste streams rendering them unsuitable for reuse.

Other Waste Management Policies

In 2004, MOE set a provincial goal of diverting 60 per cent of wastes from disposal by the end of 2008 and discussed how the goal could be achieved in "Ontario's 60% Waste Diversion Goal – A Discussion Paper." A year later, the Environmental

Assessment Advisory Panel recommended that MOE quantify and prioritize the need for waste management services, which MOE has committed to outlining in a "statement of provincial priority." Lastly, in June 2007, MOE released a draft "Policy Statement on Waste Management Planning" that would establish waste reduction as the first priority, and if approved, would require municipalities to prepare 20 to 25-year waste management plans describing how they will reach the provincial goal.

ECO Comment

The ECO is pleased that this program plan has been approved. The Plan should increase diversion of MHSW, as well as the public's awareness of the importance of reducing household hazardous waste and disposing of it appropriately. The Plan will shift the post-collection costs of managing these materials from municipalities to industry. For the first time, Ontario will have reliable province-wide data for a large portion of the types and amounts of MHSW materials sold, collected and diverted, and will know how the wastes are finally disposed. In addition, MOE will receive dedicated funding to support its compliance and enforcement work. MOE's approval of this Plan signals its continued support of producer responsibility and the WDA.

In 2003/2004, the ECO urged MOE to develop an overall waste management strategy that addressed the full range of waste management approaches, including landfilling, incineration, land application and diversion. Two years later, the ECO reported that progress on initiatives needed to achieve the provincial waste diversion goal of 60 per cent was slow. Since then, MOE has committed to developing a "statement of provincial priorities" and has released the draft "Policy Statement on Waste Management Planning." The ECO urges MOE to proceed expeditiously with these initiatives. The ECO also suggests that MOE consider bans on certain types of hazardous and special materials to eliminate both their environmental risks and the need for costly waste management programs. The ECO will continue to monitor MOE's progress on waste management.

For ministry comments, please see page 218.

3.11 – Ministry of Transportation Environmental Standards Project

In November 2007, the Ministry of Transportation (MTO) posted seven decision notices on the Environmental Registry that all fall under the umbrella of MTO's ongoing Environmental Standards Project. The posted decisions were:

- Environmental Reference for Highway Design
- Wildlife and Transportation Reference Document for the Oak Ridges Moraine
- Environmental Guide for Patrol Yard Design

- Environmental Guide for Contaminated Property Identification and Management
- Environmental Guide for Erosion and Sediment Control During Construction of Highway Projects
- Environmental Guide for Fish and Fish Habitat
- MTO/DFO/MNR Fisheries Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings

MTO oversees over 16,000 kilometres of highway, including the 400-series highways, arterial and collector roads, and any other roads not administered by municipalities. For the 2007/2008 fiscal year, MTO was allocated an annual capital budget of $1.12 billion. This covered everything from the construction of new highways, road widening projects and drainage improvements to new lighting and road resurfacing.

In March 2004, the MTO announced that it was compiling and standardizing its various environmental standards, policies and guidelines into a systematic, centrally located format, as part of its Environmental Standards Project. The ECO reviewed the initial decisions under this project in the 2004-2005 Annual Report. The intent has been to pull all of the environmental guidelines, policies, procedures and practices related to highway planning, design, construction, operation and maintenance together in one place, ensure the material is comprehensive, and update any out-of-date information (see the ECO's detailed review in Section 4.23 of the Supplement to this Annual Report).

Environmental Reference for Highway Design

The purpose of this reference document is to provide guidance to consultants in addressing environmental assessment issues during the preliminary planning and detailed design phase of transportation projects. It is intended to provide consultants with information on the legislative obligations, technical quality requirements, and program delivery expectations of MTO.

Wildlife and Transportation Reference Document for the Oak Ridges Moraine

This reference document is intended to provide suggestions to help address the environmental protection requirements for the Oak Ridges Moraine, specifically those related to facilitating wildlife movement and maintaining ecological integrity. This document is not intended to apply across the whole of the province, and is considered a literature review rather than a "how to" manual by MTO.

Environmental Guide for Patrol Yard Design

This guide is intended to outline the typical potential environmental concerns to be considered by MTO staff and contractors during the design of new patrol yards (i.e., the areas where MTO stores and maintains their equipment, as well as salt and sand storage areas). The guide features environmental design considerations, including those designed to minimize impacts by choosing an appropriate site for the patrol yard.

Environmental Guide for Contaminated Property Identification and Management

This guide is intended to direct the assessment of environmental site conditions and liabilities and the identification of options for mitigation on contaminated sites that MTO owns. The guide is to be used either when MTO is acquiring a contaminated property or when a property is being disposed of.

Environmental Guide for Erosion and Sediment Control During Construction of Highway Projects

This guide is intended to provide information and direction to:

- strengthen the management of highway projects by implementing a modern erosion and sediment control management approach;
- consider the use of alternative and cost effective erosion and sediment control techniques;
- facilitate easy access to and consistent application of erosion and sediment control techniques and drainage management practices across all MTO regions of the province;
- allow development of effective erosion and sediment control through a variety of delivery methods;
- ensure that MTO regulatory concerns are addressed in a consistent and comprehensive manner; and
- address issues that are sources of potential liability to MTO as a result of the erosion of earth surfaces or the sedimentation of water courses.

Implications of the Decision

MTO staff and MTO's consultants are expected to apply these key environmental reference documents and guides to all transportation projects. In addition, they are referenced in the legal documents that are signed when a contract is awarded, and integrated with MTO's Class Environmental Assessment (EA) for Provincial Transportation Facilities.

The documents summarize existing legislated requirements, and do not set requirements beyond what is legislated. The new references and guides do not change how MTO staff, contractors and others apply or interpret MTO's Class EA process. The new guides do not change how a route is selected or where highways will be built or expanded in the future.

ECO Comment

The ECO commends MTO for recognizing the need to centralize all of this information. MTO staff has noted that the Environmental Standards Project is a 'living' process and that the project needs to be assigned a high priority and allocated sufficient ongoing resources in order to keep it up to date.

The ECO notes, however, that the Environmental Standards Project does not resolve some of the underlying problems with the highway planning process, EA process and the actual construction process. These documents and guides only apply once the decision has already been made to build a highway. The ECO has previously outlined these concerns in its 2004-2005 Annual Report. For example, the ECO noted that the Provincial Policy Statement allows infrastructure, including highways, in provincially significant wetlands.

The compiling and up dating of these references and guides does not change the fact that highways are frequently built along the only corridor that is left after the rest of an area has been approved for development. This situation 'pushes' roads into areas where many natural heritage features are located. The ECO has pointed out in past Annual Reports that many Ontario residents are very frustrated with the EA process for highways. Development often seems inevitable, and roads and highways may be built through natural areas regardless of the impacts that they will have on the environment.

The ECO remains concerned with instances where the "Environmental Protection Requirements" (EPRs), the document that synthesizes the legislation applicable to MTO projects, inappropriately qualifies environmental statutory requirements with phrases such as "to the extent that is technically, physically and economically practicable." This seems to provide road planners, designers and contractors with loopholes that aren't contained in or intended by the original legislation being summarized. Although this document is not one of the decision notices that is being reviewed here, it is an integral component of the overall Environmental Standards Project. The ECO raised concerns about this same language in its 2004-2005 Annual Report.

The ECO is pleased to note that there was training for MTO environmental staff on the documents and guides when they were 'launched' in 2007. However, training on the guides is not compulsory for contractors or consultants.

While MTO's environmental standards are intended, primarily, to help during the planning and design stages for new transportation projects, a key concern is how carefully the standards, such as sediment and erosion control, are interpreted and implemented on the ground by hundreds of contracting companies working for MTO. There are contract administrators on site to oversee projects, but compliance with environmental standards and guidelines are only a small part of their overall responsibilities.

Contracts have a definitive end date and once that date is reached, contractors are expected to have provided all the contract requirements in a functioning state. MTO states that it has monitoring, enforcement, sanction and appraisal systems for contractors who do not comply fully with environmental requirements. Nevertheless, the ECO remains concerned that environmental requirements are perceived to be a low priority for contractors, despite the detail laid out in these MTO environmental standards documents and guides. MTO notes that the ministry has issued three environmental infractions to contractors in each of years 2005, 2006 and 2007. Considering the scale of the ministry's contracted work province-wide and its $1.12 billion capital budget, this modest compliance activity is surprising. It may reflect an insufficient level of compliance monitoring.

MTO usually does not carry out environmental compliance monitoring or auditing of its highway projects at the post-construction phase. The intense scheduling and budgetary pressures typical in the highway construction industry make it unrealistic to expect that up-front environmental standards alone will be effective, given limited field monitoring and enforcement and the absence of field auditing. This is an issue that MTO should be addressing corporately, with the active participation of branches such as the ministry's Contract Management and Operations Branch.

The ECO will be monitoring how MTO continues to implement the Environmental Standards Project.

For ministry comments, see page 218.

3.12 – *Regulatory Modernization Act, 2007*

Description

The *Regulatory Modernization Act, 2007* (*RMA*) is intended to enable ministry staff to work cooperatively, use information more effectively and target enforcement efforts where they are needed most – chronic offenders. The Act covers 13 ministries, which are responsible for the enforcement of 120 Acts and accompanying regulations, and employ approximately 2,500 front-line field staff, inspectors and investigators. The government anticipates that improved information sharing will better protect workers, consumers, and the environment through more effective regulatory enforcement. The Act is also intended to alleviate confusion and to allow business to operate more effectively by reducing duplication in information collection and other compliance activities.

In June 2006, the Ministry of Labour (MOL) posted a proposal notice on the Environmental Registry for the proposed *RMA*. Bill 69 was introduced for First Reading on February 27, 2006, and received Royal Assent on May 17, 2007. The Act came into force on January 17, 2008. (For a more detailed review of the *RMA*, please see Section 4.18 of the Supplement to this Annual Report.)

Information Collected and its Purposes

Sections 4 and 5 of the *RMA* specify that information collected, used and disclosed by ministries is restricted to compliance-related materials that fulfil compliance-related duties with respect to "organizations." (An "organization" means an entity, including an individual who serves as a sole proprietor or partner, to which designated legislation applies.)

Information Sharing

Section 9 permits authorized persons in one ministry or agency to make and share observations collected under the authority of one Act or regulation with authorized staff in another ministry or agency that might be relevant to the enforcement of another statute.

Under section 7, a minister can authorize a person or class of persons to use information collected under a designated Act for the purposes of another designated legislation. The information could have been collected before the legislation was designated under the *RMA* or before the *RMA* came into force. Section 14 also allows ministers to authorize special teams of staff to conduct compliance activities under multiple statutes.

Section 10 allows specified information, including complaints, penalties and conviction records, to be published or posted on ministries websites.

Penalties and Sentencing

Section 15 permits a prosecutor to request that a court consider an offender's prior convictions, including those committed under a different statute or before the *RMA* came into force, as an aggravating factor when determining the appropriate penalty upon conviction.

Ontario Regulation 75/08

In January 2008, MOL posted an information notice for the proposed regulation under the Act. Ontario Regulation 75/08, filed on April 4, 2008, enables key provisions under the *RMA* by prescribing legislation designated for: authorizations to collect, use and disclose information; publication of specified information; and authorizations to exercise functions under multiple Acts or regulations.

The *RMA* resolved a barrier to information sharing under the *Environmental Protection Act* (*EPA*). The Act prohibits sharing information with provincial officers who do not administer the *EPA*. It was recently amended to permit information sharing authorized under the *RMA*.

Public Participation

MOL received comments from various commercial associations, and consulted with the Office of the Information and Privacy Commissioner to ensure the *RMA* complied with privacy law.

Commenters believed the types of information and the purposes for which it can be collected, used and shared was too broad and could lead to 'fishing expeditions'. Concern was expressed over the potential publication of confidential business and complaint-related information. Commenters worried that multiple authorizations could create "super-inspectors" lacking the requisite expertise and training under designated statutes. Furthermore, commenters opposed courts considering prior convictions under any Act during sentencing, and the retroactivity of the *RMA*.

ECO Comment

The ECO commends MOL for striving to improve regulatory enforcement activities across ministries. To ensure the anticipated benefits are realized, the ECO urges MOE and MNR and other *EBR*-prescribed ministries to work with MOL to draft comprehensive practice and training guidelines that promote early detection and reporting of environmental problems.

The ECO supports provisions in the *RMA* targeting repeat offenders. Allowing courts to consider past convictions under any designated Act when sentencing a company for environmental infractions, strengthens enforcement, and sends the message that repeat environmental offenders are not tolerated in Ontario. The ECO also backs the publication of companies' conviction and penalty records. Increased transparency through publicly available information will assist the public in making informed consumer and business decisions, and pressure repeat offenders to improve their compliance record.

The ECO is hopeful the Act can facilitate greater environmental information sharing between ministries. This should be complemented by greater inter-ministerial collaboration on comprehensive plans aimed at preventing or mitigating multi-layered environmental concerns. Inter-ministerial cooperation on enforcement and compliance matters is a positive initiative, and if implemented effectively could provide added environmental enforcement support.

However, the ECO strongly cautions MOE and MNR against using this legislation to economize on their enforcement and compliance activities by relying on other ministries' inspectors to alert them to environment problems. These activities are already under-resourced and under-staffed. Moreover, the ECO firmly believes that inspectors with environmental expertise should be the primary investigators of environmental matters. The ECO is skeptical that "super-inspectors" (staff authorized to operate under several Acts) would possess the requisite expertise to adequately protect the environment, worker safety and the public interest. The ECO will continue monitoring inspection and compliance activities to observe whether this legislation is abused.

More Decisions of Interest

The foregoing section has summarized 12 of the 24 environmentally significant decisions reviewed in detail by the ECO this year. In addition to full reviews of these 12 decisions, Section 4 of the Supplement contains other reviews of interest, including the following:

The Safeguarding and Sustaining Ontario's Water Act, 2007 (SSOWA)

SSOWA is an important piece of legislation that implements a number of terms of the Great Lakes - St. Lawrence River Basin Sustainable Water Resources Agreement, 2005 ("the 2005 Agreement") signed by the Governments of Ontario, Quebec and the eight Great Lakes States. The 2005 Agreement provided a framework to protect the Great Lakes from water transfers within and out of the basin to ensure sustainability of the region's water resources. This review describes the amendments that were made to the Ontario Water Resources Act (pursuant to the SSOWA) to implement the 2005 Agreement and points out some deficiencies in the legislation, including its weak approach to controlling intra-basin transfers of water.

Regulation under the OWRA for the Protection of Lake Simcoe

In early 2008, the Ontario government passed the Lake Simcoe Protection Regulation, O. Reg. 60/08, signalling its intent to act strongly to protect Lake Simcoe by limiting new loadings of phosphorous released from sewage treatment plants in the basin. This review describes the provisions of this regulation and outlines the long-term protection strategy for the Lake Simcoe basin that is being developed under the rubric of a policy proposed by MOE in March 2008.

part four

applications for review and investigation

Part 4 – Applications for Review and Investigation

Under the *EBR*, Ontario residents have the right to ask prescribed government ministries to review an existing policy, law, regulation or instrument (such as a certificate of approval or permit) if they feel that the environment is not being protected. Residents can also request prescribed ministries to review the need for a new law, regulation or policy. Such requests are called applications for review.

Ontario residents can also ask ministries to investigate alleged contraventions of specific environmental laws, regulations and instruments. These are called applications for investigation. Applications for investigation may be filed under 19 different statutes that are prescribed under the *EBR*.

The ECO's Role in Applications

Applications for review or investigation are first submitted to the Environmental Commissioner of Ontario, where they are reviewed for completeness. Once ECO staff members have decided that a particular application meets the requirements of the *EBR*, the ECO forwards it to the appropriate ministry. The ministry then decides whether it will conduct the requested review or investigation, or whether it will deny the request. The ECO reviews and reports on the handling and disposition of applications by ministries. The issues raised by the applications are an indication of the types of environmental concerns held by members of the public; on occasion, the ECO conducts research on a concern raised in an application for review or investigation.

Four ministries and one agency are required to respond to both applications for review and applications for investigation:

- the Ministry of the Environment (MOE);
- the Ministry of Energy (ENG);
- the Ministry of Natural Resources (MNR);
- the Ministry of Northern Development and Mines (MNDM); and
- the Technical Standards and Safety Authority (TSSA) of the Ministry of Government Services.

Two ministries are required to respond to applications for review only:

- the Ministry of Agriculture, Food and Rural Affairs (OMAFRA); and
- the Ministry of Municipal Affairs and Housing (MMAH).

In the 2007/2008 reporting year, the ECO reviewed 14 applications for review and 12 applications for investigation. Individual applications for review and investigation received by ECO may be forwarded to more than one in ministry if the subject matter is relevant to multiple ministries, or if the applicants allege that Acts, regulations or instruments administered by multiple ministries have been contravened. For all 26 of these applications, the ministries concluded that a review or an investigation was not warranted. In many cases, the ECO disagrees with the decision to turn down an application and believes that the issues raised by the applicants did merit a review or an investigation.

The ECO's detailed reviews of applications for review and investigation are found in Sections 5 and 6 of the Supplement to the Annual Report. In the following pages, brief summaries of selected applications handled by ministries during this reporting period are provided.

4.1- Permitting Water Takings by Commercial Water Bottlers

In January 2007, two applicants filed an application requesting that the Ministry of the Environment (MOE) review its policy on issuing Permits To Take Water (PTTWs) to commercial water bottling facilities. The applicants asked the ministry to develop a policy that expressly prohibits MOE from issuing PTTWs to commercial water bottling facilities.

The applicants argued that issuing PTTWs to commercial water bottling operations is contrary to the ministry's Statement of Environmental Values, which states that "the ministry will adopt an ecosystem approach to environmental protection and resource management."

The applicants argued that an "ecosystem approach" to water management requires that water withdrawn from a watershed must be returned to that source watershed. The applicants noted that water withdrawn by commercial bottlers in Ontario may be shipped anywhere, including outside of the source watershed. Although bulk transfers of water out of Ontario's basins have been prohibited since 1999, this prohibition explicitly excludes the transfer of bottled water. Accordingly, the applicants argued, implementation of an ecosystem approach very simply can not allow water to be taken for the purposes of commercial water bottling. Therefore, the applicants urged the ministry to stop issuing PTTWs to commercial water bottlers to ensure that water remains within its source watershed.

The applicants also argued that issuing PTTWs to commercial water bottlers is contrary to the goals of the *Environment Bill of Rights* (*EBR*) – as set out in the Preamble to that Act – to ensure that the environment "is used wisely, protected and conserved, and where necessary, restored, for the benefit of present and future generations." The applicants asserted that commercial water bottlers remove massive amounts of water from the aquifer. They stated that, not only can this practice cause significant harm to the environment, it also squanders a precious public resource for future generations.

Therefore, the applicants recommended that, if PTTWs are to be issued to commercial water bottlers, the ministry should impose a royalty fee for each litre of water taken by commercial bottlers, so that at least there is a "benefit to present and future generations" as envisioned in the *EBR*, rather than giving Ontario's water away for free to commercial bottlers.

The applicants also argued that, by issuing PTTWs for water bottling, MOE is encouraging the generation of large volumes of unnecessary and avoidable waste in the form of plastic bottles. The applicants stated that, in light of MOE's mandate to reduce the amount of waste in the province, the ministry ought to consider this related issue within its PTTW policies. (For a more detailed review of this application, please see Section 5.2.7 of the supplement to this Annual Report.)

Ministry Response

MOE denied this application for review based on the *EBR* provision that states that a review of a decision is not necessary if that decision was made during the previous five years in a manner consistent with the *EBR*'s public participation requirements. MOE stated that the ministry has reviewed and consulted extensively on its Permit To Take Water program since 2003, and thus, this application does not warrant a review.

MOE noted that the ministry provided two separate opportunities for public consultation in 2003 and 2004 on changes to its Water Taking and Transfer Regulation (O. Reg. 387/04, now the "Water Taking Regulation") under the *Ontario Water Resources Act* (*OWRA*), which came into effect in December 2004. MOE also provided an opportunity for comment on amendments to its PTTW Manual in December 2004, which came into effect in April 2005. MOE noted that O. Reg. 387/04 and the PTTW Manual, together, set out rules and policies governing ministry decisions to issue PTTWs.

The ministry also noted that it consulted with the public in early 2007 when it proposed amendments to the *OWRA* through the *Safeguarding and Sustaining Ontario's Water Act, 2007* (*SSOWA*). The *OWRA* amendments, which came into force in August 2007, specifically considered the prohibitions of out-of-basin water transfers, including the exception to the prohibition for bottled water, and elevated those provisions from regulation (O. Reg. 387/04) into law. (A decision review of *SSOWA* can be found in Section 4.2 of the Supplement to this Report).

MOE further noted that it consulted with the public on its water taking charges proposal in April 2007. This proposal led to the new water taking charge for some commercial and industrial water users, including water bottlers, which came into force in August 2007. (See the decision review of the Water Taking Charge Regulation in Section 3.3 of this Report).

Finally, MOE stated that, with respect to the applicants' concerns regarding plastic bottles, the ministry acknowledges the importance of reducing waste packaging, and that it "continues to examine options for reducing waste."

ECO Comment

The ministry's decision to reject this application for review of its PTTW policies regarding commercial water bottlers was reasonable, as MOE has reviewed and consulted on its PTTW program, including the specific issue of bottled water, fairly extensively during the last five years.

As MOE noted, the ministry recently reviewed and amended its Water Taking Regulation and PTTW Manual, which both provide direction to MOE Directors in issuing PTTWs. The ministry also recently reviewed and enacted new provisions that restrict the transfer of water out of and between Ontario's watersheds, as well as consulted on and implemented a new water taking charge for certain industries, including water bottlers. Accordingly, the public (including the applicants) have been provided with a number of recent opportunities to provide input on various aspects of the ministry's water taking program.

However, it is noteworthy that throughout the various consultations on the water taking program, numerous commenters repeatedly recommended that the ban on transferring water out of Ontario's basins should be extended to include bottled water, but the provincial government made a deliberate choice not to prohibit water takings that would transfer water in the form of bottled water.

While the provincial government has made the decision not to prohibit water takings for the purpose of water bottling, the ECO notes that this application raises another related issue – that of water allocation. The ECO has commented in past reports on the need for the ministry to consider establishing a clear policy for prioritizing water uses to ensure that PTTWs are allocated in both an ecologically sustainable and socially desirable manner (see page 120 of the ECO's 2004-2005 Annual Report, as well as the Supplement to the 2005-2006 Annual Report).

This application, as well as a second application submitted by the applicants (see the box below, setting out "The Nestle Example") and numerous other PTTW applications on the Registry, illustrate the strong opposition felt by many members of the public to the granting of PTTWs for certain commercial or industrial water uses, on the basis that such water takings may threaten the health of the aquatic ecosystem and/or the potential supply of water for other purposes (such as drinking water). These concerns are particularly strong in high use watersheds and/or under low water conditions where there is a fear that the watershed cannot sustain the amount of water-taking permits that have been issued.

To address these concerns, the ECO believes that it is essential that the province develop an implementable low water response plan (see the article on the Ontario Low Water Response Program in Section 2.3 of this Report), which should include an explicit rationale for allocating water in extreme drought conditions. In addition, to help prevent low water conditions from occurring, PTTWs should only be issued in accordance with water budgets that would help ascertain the capacity of each watershed to support water takings. Water budgets are being developed for most watersheds in Ontario under the *Clean Water Act*, and should be in place within the next few years.

The ECO also urges MOE to initiate a public debate about the possibility of establishing a hierarchy of water uses and fair allocation. The ECO believes that such policies could potentially help ministry staff and water users in responding to drought conditions and – in conjunction with proper water budgets – could also help establish a PTTW allocation system that protects the health of the ecosystem, reduces the impacts of droughts and low water conditions, and reflects societal priorities.

The Nestlé Example

On March 30, 2007, Nestlé Waters Canada filed an application to renew its PTTW for its Aberfoyle water bottling facility in the Township of Puslinch, near the City of Guelph. Nestlé was seeking a five-year renewal of its previous PTTW, which was issued in 2005 and due to expire on June 30, 2007. The 2005 PTTW permitted Nestlé to withdraw up to 2,500 litres of groundwater every minute from the Aberfoyle well, to a maximum of 3.6 million litres per day, 365 days a year (which is comparable to the usage of a municipality of 6,000 people).

Prior to Nestlé's renewal application, the applicants of the water bottling PTTW application also filed an application requesting MOE to review the Nestlé PTTW. These applicants argued that the Nestlé water taking represents a significant threat to the groundwater flow system in the local aquifer, and that it may also have negative impacts on a nearby regionally significant cold water stream and trout fishery.

The applicants also argued that Nestlé's water taking seriously jeopardizes Guelph's ability to meet both its future water supply needs and its future population growth targets. The applicants noted that, under the province's Growth Plan for the Greater Golden Horseshoe, Guelph's population is slated to grow significantly. However, with the increased demand for drinking water, the applicants argued that Guelph will quickly outgrow its present supply of drinking water. The applicants contended that Nestlé's permitted water taking, which is equivalent to seven per cent of the City of Guelph's current daily water use, could threaten not only Guelph's future water supply needs, but also the ability of Wellington County to meet its population growth targets established by the province under the Places to Grow Act.

Nestlé's 2007 application for renewal of its PTTW resulted in a major public outcry from the Guelph community. The Registry proposal notice for this *renewal generated over 8,000 public submissions registering opposition to the PTTW. This is the greatest number of public comments ever received on an instrument proposal notice posted on the Registry.*

Local opposition was likely heightened because, at the time of Nestlé's renewal application, the Guelph region was experiencing drought conditions. In the summer of 2007, Guelph and several neighbouring townships issued an outdoor watering ban, and shortly after, the Grand River Conservation Authority declared a Level 2 low water condition in the area, asking the public to make voluntary cutbacks on their water use.

Although the ministry decided not to undertake a review of this EBR application – as MOE was already undertaking a thorough review of the Nestlé PTTW pursuant to the 2007 application for renewal – this application exemplifies the overwhelming level of public interest in the issue of permitting water takings for commercial or industrial uses.

(For a more detailed review of the Nestlé PTTW application, see Section 5.2.6 of the Supplement to this Report.)

For ministry comments, see page 218.

4.2 – Land Use Planning and Protecting Groundwater Resources

In May 2007, an *EBR* application was submitted that requested a review of the need for a new policy or statute to protect the Paris Galt Moraine Complex and its function as a groundwater recharge area in the Grand River watershed. This *EBR* application was forwarded to the Ministry of the Environment (MOE), the Ministry of Natural Resources (MNR), and the Ministry of Municipal Affairs and Housing (MMAH). The ECO notes that it was unable to forward this application to the Ministry of Public Infrastructure Renewal (PIR), as the ministry is not prescribed under the *EBR*. PIR is responsible for regional growth plans, under the *Places to Grow Act*, which directly impact upon the protection of groundwater recharge areas.

The applicants were the Mayor of Guelph and the Member of Provincial Parliament for the riding of Guelph-Wellington. Among the material submitted with the application was a Private Member's Motion introduced by the MPP for Guelph-Wellington and passed by the Ontario legislature in December 2004:

> In the opinion of this House, the Government of Ontario should identify and protect moraines, watersheds and headwater areas, beyond the Greenbelt study area initially identified by the Province, in which urban development would have a significant negative impact on groundwater supplies.

The applicants stated that municipalities within the Grand River watershed, such as Guelph, Cambridge, Kitchener, and Waterloo, are largely dependent on groundwater resources to supply their municipal drinking water. The applicants also noted that these four municipalities are all designated as growth areas in the Growth Plan for the Greater Golden Horseshoe under the *Places to Grow Act*. The applicants stated that it is critical to protect the Paris Galt Moraine Complex as a groundwater recharge area as "growth areas will shortly encroach into the moraine." The applicants also stated that "provincial policy leadership is required in analyzing the extent to which the cumulative effect of aggregate extraction negatively impacts groundwater recharge in the moraine areas."

The Geographic Scope of the Paris Galt Moraine Complex

According to MNR, this geological feature extends approximately from the towns of Dehli and Simcoe in the southwest to the village of Erin in the northeast. This belt of moraines is approximately 6.4 to 8 km wide, featuring eskers and drumlins, as well as hummocky topography and outwash gravel. Part of the northeastern section of the moraine complex lies within the Greenbelt Area, as designated under the *Greenbelt Act*, and the entire moraine system is within the Greater Golden Horseshoe Growth Plan Area, under the *Places to Grow Act*. MNR states that there is a "slight correlation" between the Paris Galt Moraine Complex and aggregate extraction areas.

This moraine complex contains an earth science area of natural and scientific interest (ANSI) that was originally identified by MNR in the late 1970s. The ministry stated at that time that the earth science values of this moraine complex warranted an ANSI designation, as this landform was provincially significant. However, according to MNR, the original delineation was to be interpreted as a preliminary marking of the boundaries pending further detailed study. Only a small portion of the total area that this moraine complex covers was formally identified as an ANSI by MNR in this initial mapping exercise.

In 2005, MNR began a process of dividing the existing Paris Galt Moffat Moraine ANSI into three separate, but smaller, ANSIs. The proposed Paris Moraine ANSI, the proposed Galt Moraine (at Corwhin) ANSI, and the proposed Moffat Moraine ANSI encompass three "core areas" of the moraines and some adjacent lands. MNR states that this new delineation is based on a "strictly scientific assessment" and, further, it notes that the moraine features "may be susceptible to irreversible impacts through aggregate extraction or urban development."

Municipal Water Supply and the Paris Galt Moraine Complex

The City of Guelph, which is dependent on groundwater for its supply of drinking water, currently is developing a Water Supply Master Plan in order to ensure adequate supplies are available to satisfy population growth projections over the next 50 years. However, there is some disparity in growth forecasts for the municipality. As noted in the ECO's 2006-2007 Annual Report, "provincial population growth projections for Guelph are greater than the projections in the municipality's Official Plan; the City is planning for a 1.5 per cent annual increase in population to the year 2027, while the province is projecting a 2.5 per cent annual increase over that same period." Municipal and provincial forecasts for population growth in Guelph for the year 2031 differed by almost 26,000 people. Since our last Annual Report, the Ontario government has been working with the City of Guelph and the County of Wellington "to ensure realistic forecasts" for population growth.

To meet the increased demand for water supply, the Water Supply Master Plan outlines the possibility of siting new wells outside the boundaries of the City of Guelph. One of the identified alternatives is to take additional water from the Amabel aquifer, which is overlain by the Paris Galt Moraine. Additionally, the County of Wellington completed a detailed Groundwater Protection Study in 2006 that led to proposed amendments to its Official Plan, specifically with regard to wellhead protection areas. The Groundwater Protection Study also recommended that development be prohibited "on the moraine system that would diminish recharge function and/or impair quality."

Ministry Response

In July 2007, MOE agreed to undertake this *EBR* review and to provide a report within 18 months. However, the ministry stated that the *Clean Water Act* itself will not be part of this review. Further, MOE stated that this review will not affect current planning decisions and that all existing ministry policies will continue to apply during the review period.

MNR denied the application, stating that its role is limited to providing technical advice to other ministries with respect to many of the issues raised by the applicants. MMAH also denied the application, stating that the public interest does not warrant a review "in light of the strong policy direction contained in the PPS, 2005 (Provincial Policy Statement, 2005) and Greenbelt Plan to protect both natural heritage features and water resources."

ECO Comment

The ECO commends MOE for undertaking this review. This application is similar to another *EBR* application that the ministry is undertaking related to the Waterloo

Moraine. These *EBR* applications highlight several long-standing concerns of the ECO with regard to Ontario's land use planning system.

The Ministry of Public Infrastructure Renewal has the responsibility for overseeing a broad array of environmentally significant land use decisions, and planning authorities must conform to the *Places to Grow Act*. For example, the environmental impact of the Growth Plan for the Greater Golden Horseshoe was a central concern of the applicants. However, PIR is not prescribed under the *EBR*. As such, Ontarians do not have *EBR*-mandated public consultation rights, nor are PIR's policy choices subject to scrutiny under the *EBR*'s applications for review provisions.

The ECO disagrees with the decisions by both MMAH and MNR to not undertake this review. The ECO has long been concerned about the fact that natural heritage features and functions are not adequately protected by Ontario's land use planning system. These facets of land use planning are a joint responsibility of MMAH and MNR. The current land use planning system often gives priority to other land use interests, at the expense of natural areas and the province's biological diversity. In our 2006-2007 Annual Report, the ECO commented that the Growth Plan for the Greater Golden Horseshoe "reverses the sustainable planning process; it elevates the province's goal of accommodating population increases – with economic growth as the central driver – over the need to live within ecosystem limits."

There is a clear need for planning authorities to be capable of planning based on ecological principles. Indeed, the passage of the *Oak Ridges Moraine Conservation Act*, while laudable in of itself, is an implicit acknowledgement that ecological principles do not normally guide the broader land use planning system. Natural features of the landscape – such as large moraines with significant hydrologic functions – should be used as the starting point to guide local land use planning decisions. The current land use planning system gives insufficient weight to environmental concerns, and it does not adequately empower planning authorities to restrict specific forms of development where they are ecologically inappropriate.

For ministry comments, see page 219.

4.3 – Dofasco KOBM Meltshop

In June 2007, two applicants requested a review of three Certificates of Approval for Air Emissions (Cs of A), issued to ArcelorMittal Dofasco Inc. ("Dofasco") for its KOBM meltshop in Hamilton. The applicants assert that years of visible emissions from the meltshop, ongoing problems with sooty particulate deposition in nearby neighbourhoods, and a lack of appropriate response from the Ministry of the Environment (MOE) and Dofasco led them to request a review. (For a more detailed review of this application, please see Section 5.2.11 of the Supplement to this Report).

Background

Among Ontario cities, Hamilton's air quality historically has been very poor. Although several initiatives have improved Hamilton's air quality over the years, the levels of air pollution remain higher than or comparable to those of other communities in southern Ontario. Furthermore, for several years, the residents of northeast Hamilton have complained that incidents involving the deposition of fine black airborne particles have caused damage to property and negatively affected their quality of life. During the summer of 2006, complaints of black fallouts led MOE to sample residential properties, inspect industries, and produce a report on the fallout events. Dofasco's KOBM meltshop is located approximately 0.5 - 4.5 kilometres from the residences in the main fallout complaint area.

The applicants stated that a review was needed because:

- the meltshop's existing Cs of A are outdated;
- Dofasco had previously acknowledged problems with the meltshop's emission controls and indicated that it would install a new system by the end of 2007;
- the current Cs of A do not require stack testing or continuous emissions monitoring;
- the current Cs of A do not require consideration of cumulative impacts on the entire airshed; and
- MOE has no protocol that requires regular reviewing or updating of Cs of A.

The applicants submitted photographic documentation and visual observations to demonstrate that visible emissions from the meltshop are chronic and suggested that Dofasco could be non-compliant with section 14(1) of the *Environmental Protection Act* (*EPA*) or section 34(1) of O. Reg. 419/05. Moreover, the application contained documentation of the summer 2006 fallout events as potential evidence that industries in the area (perhaps Dofasco) may be out of compliance with section 33 of O. Reg. 419/05.

Ministry Response

In February 2008, MOE denied the application for review on the grounds that Dofasco's meltshop operations will be reviewed in an application for a Comprehensive C of A (Air) that Dofasco plans to submit by fall 2008. This Comprehensive C of A would replace the three existing Cs of A, cover all air emissions from the meltshop (as well as the rest of the steel plant), and require MOE to review the meltshop's operations and mitigation measures, making a review of the existing Cs of A redundant. MOE also denied the application for review on the grounds that, in the ministry's opinion, the potential for harm to the environment if the review were not undertaken was not significant. MOE stated that Dofasco has initiated improvements to its secondary emissions control system as outlined in its Strategic Air Emission Improvement Plan and that MOE conducts regular inspections of Dofasco's Hamilton operations.

MOE stated that technology doesn't presently permit stack testing or continuous emissions monitoring at the meltshop. Therefore, MOE's approach is to monitor particulate matter through air monitoring stations throughout Hamilton. Although not directly related to source testing, a Comprehensive C of A would require Dofasco to make an emissions summary table public.

With respect to the applicants' concern that the meltshop's existing Cs of A do not consider cumulative impacts, MOE stated that it currently "requires industrial facilities to assess all air emissions and their impact from an airshed perspective to determine compliance with O. Reg. 419/05" and that to complement this, MOE "undertakes air quality assessments of the airshed being impacted to determine whether or not an airshed is stressed and what conditions should be imposed in the C of A for air emissions for facilities located within that airshed."

Finally, MOE noted that while its report on the summer 2006 black fallout incidents could not identify a definitive source of the particulate matter (and Dofasco asserts that the meltshop does not emit sooty or carbonaceous particles like those involved in the fallouts), Dofasco has submitted a contingency plan for responding to such events. In response to the applicants' concerns about visible emissions from the meltshop, MOE confusingly pointed to its inability to identify a definitive source of the 2006 black fallout incidents.

Other Information

In February and March 2008, Hamilton media reported on several incidents of visible emissions released from Dofasco's steel plant. In particular, a huge red plume was produced on March 10, 2008, when excess molten iron from Dofasco's blast furnace was poured into shallow pits in a process called 'coffining' (or 'beaching'). In this case, the presence of moisture in the pits resulted in iron oxide particles being emitted into the air. In April 2008, MOE issued a control order to Dofasco focusing on the operating procedures used in the coffining process. The control order does not address emissions from Dofasco's KOBM melt shop.

ECO Comment

The ECO is very disappointed that MOE was so late (six months overdue) in issuing its decision on this application.

The ECO believes that MOE's decision to deny this review is reasonable, but only because Dofasco intends to apply for a Comprehensive C of A. Since Dofasco's application will require MOE to review the meltshop's operations, and because an approved Comprehensive C of A would replace the meltshop's existing Cs of A and must be drafted in accordance with O. Reg. 419/05, the ECO believes that a review of the meltshop's current Cs of A would be redundant. Nonetheless, the ECO's agreement with MOE's decision to deny this review is contingent on MOE's consideration of other issues raised in the application.

The ECO encourages MOE to monitor the reduction of emitted contaminants that results from Dofasco's planned improvements to the meltshop's secondary emissions control system. Moreover, the ECO encourages MOE to impose requirements for additional emissions controls, if necessary, when reviewing Dofasco's application for a Comprehensive C of A.

Likewise, the ECO encourages MOE's review of Dofasco's application for a Comprehensive C of A to address the applicants' concern regarding visible emissions from the meltshop. The ECO finds MOE's response to this concern confusing since the issue of visible emissions from the meltshop is a separate matter from the fallout incidents. The ECO reminds MOE that it is responsible for responding to this concern and should consider imposing additional air quality controls, if necessary, when reviewing Dofasco's application for a Comprehensive C of A.

In May 2008, the ECO visited the ArcelorMittal Dofasco steel plant to observe improvements to the meltshop's secondary emissions control system, as well as changes to the plant's coffining procedures (see 'Other Information' above).

The ECO is surprised by the ministry's response that MOE "requires industrial facilities to assess all air emissions and their impact from an airshed perspective to determine compliance with O. Reg. 419/05." The ECO notes that this regulation makes no mention of cumulative impacts or the consideration of the local airshed. In fact, MOE itself has acknowledged (in other circumstances) that "(O. Reg. 419/05) does not explicitly deal with background concentrations, cumulative or synergistic effects, persistence and bioaccumulation of contaminants." The ECO notes that cumulative effects are of significant concern in stressed airsheds like Hamilton. If MOE is serious about taking an airshed perspective in this case, one would expect MOE to consider the background concentrations and cumulative impacts of key contaminants when setting emissions limits for Dofasco's Comprehensive C of A.

Although the ECO recognizes that current technology precludes stack testing and continuous emissions monitoring at the meltshop, we do not believe that the suggested alternative (i.e., monitoring particulate matter using air monitoring stations throughout Hamilton) is an equivalent method for measuring contaminant levels emitted from the meltshop and evaluating facility compliance. While ambient air monitoring is beneficial for measuring the impacts of emissions on a particular area, it is not useful in attributing emissions to a particular source, especially in a polluted airshed like Hamilton. The ECO is reassured by MOE's statement that continuous emissions monitoring, source testing, and reporting requirements are considered in the ministry's review of all Cs of A (Air). We urge MOE to consider these matters when reviewing Dofasco's Comprehensive C of A.

The ECO shares the applicants' concern that no MOE protocol requires any regular review or update of Cs of A. The ECO noted in its 2006-2007 Annual Report that "throughout Ontario, many facilities are operating under outdated Cs of A. As a result, there are inequities between more recently licenced facilities – which generally need to meet the most modern and stringent standards – and older permitted facilities, which often continue to operate under outdated standards and models." The ECO acknowledges that as the stricter emissions standards in O. Reg. 419/05 take effect between 2010 and 2020, facilities will be expected to examine their emissions and determine whether new pollution controls are needed. However, as the ECO has previously stated, "the success of this regulatory reform will depend on a significant beefing up of MOE's inspection, compliance and enforcement capacity." Moreover, since even within this new regulatory framework there is still no requirement that Cs of A (other than Comprehensive Cs of A) be regularly reviewed, the ECO recommends that MOE consider the need for a protocol to review Cs of A on a regular basis.

BLACK SOOTY FALLOUT EVENTS IN NORTHEAST HAMILTON

For several years, residents of northeast Hamilton have complained of fallout incidents involving the deposition of fine black airborne particles. Many have called on MOE to identify and then prosecute the responsible local industries. During the summer of 2006, complaints of extreme black fallout events led MOE to sample residential properties, inspect industries, and produce a report on the fallout events. Although the investigation was unable to definitively ascribe the incidents to any one emissions source, it did conclude that the events could be attributed to the industries in the north end of Hamilton (i.e., ArcelorMittal Dofasco, Columbian Chemicals Canada and Stelco Steel). Dofasco asserts that its KOBM meltshop does not emit sooty or carbonaceous particles like those involved in the sooty fallouts.

Subsequent incidents of sooty deposits have continued to affect residents of northeast Hamilton. After analyzing dust samples from one such event in February 2007, MOE blamed Dofasco and Stelco Steel and requested that the companies submit reports on how to manage the problem.

The ministry states that it continues to respond to reports of fallout incidents and track down responsible sources. It states that its initiatives include:

- the implementation of a 24/7 procedure to respond to complaints and notifications of fallout incidents;
- the analysis of samples collected from residential properties;
- the development of a plan to address the issue;
- work with Clean Air Hamilton and several large companies to implement fugitive emission and dust control plans;
- a Fugitive Dust Emissions Workshop in December 2006, where MOE identified a number of emissions sources for inspection; and
- a partnership with a professor at McMaster University for the analysis of mobile air monitoring data.

Additionally, MOE indicates that a number of new initiatives are under consideration:

- The Hamilton Air Monitoring Network (HAMN) is considering installing nephelometers (instruments for measuring suspended particulates) at several locations around Hamilton's industrial area to monitor sources of particulate fallout;
- HAMN is working with organizations to make air quality data publicly available in real time; and
- MOE is looking into other technologies to supplement existing emissions monitoring.

For ministry comments, please see page 219.

4.4 – Reforming the *Mining Act*

In January 2008, an *EBR* application was submitted requesting a review of the *Mining Act* and the *Provincial Parks and Conservation Reserves Act*. The applicants were concerned that the existing legislative framework inadequately addresses the withdrawal of lands from mineral staking, particularly those lands that are ecologically significant. Staking involves marking a section of land to claim the sole right to prospect for minerals and the statutory privilege to later apply for a lease; when lands are withdrawn from mineral staking, mining is not permitted on those properties. This application for review was forwarded to the Ministry of Northern Development and Mines (MNDM) and the Ministry of Natural Resources (MNR).

The applicants stated that the *Mining Act* should be amended immediately, prior to any other pending reviews of the legislation. The applicants stated that amendments were needed forthwith to prevent "potential harm to the environment" and that the current system for withdrawing lands from mineral staking is prone to error. They stated, "There are several examples in previous ECO reports of poor information provided to the public and prospectors." As one example of their concerns, the applicants made reference to the issue of lands that were not withdrawn along the Attawapiskat River that prevented the creation of a provincial park along a 35-kilometre stretch of this northern river.

The applicants stated that the lakebeds of all the Great Lakes are protected from mineral development by an Order in Council made in 1912. The applicants believed that this Order in Council is still in effect, yet MNDM's online claims mapping system does not show that the lakebeds of the Great Lakes are withdrawn from mineral staking, creating the risk that these areas could be staked mistakenly for mineral development.

In May 2008, MNDM denied this *EBR* application. The ministry states it has "taken action to resolve these isolated incidences" in which the lack of withdrawal orders has impaired the ability of MNR to regulate sites as protected areas. For example, the ministry states that the applicants' example of the lack of withdrawal orders preventing the establishment of a protected area along the entire course of the Attawapiskat river "is an anomaly, and not illustrative of a systematic failure of claim recording in Ontario." In this case, MNDM states that the necessary withdrawal orders were "imposed, but never fully documented" and "corporate memory of the withdrawal was lost." In regard to other areas that face similar conflicts, MNDM states that there has been an "ongoing attempt to resolve these issues."

MNDM states that there is no need to confer the authority to MNR to order the withdrawal of ecologically significant lands or areas that are candidates to be regulated as protected areas from eligibility for staking. Indeed, MNDM states that the applicants' concern and the "rationale for this proposal is not clear." The ministry states that it has a "clear and distinct" mandate from MNR and that it is solely responsible for the administration of the *Mining Act*. MNDM states that "there is no reason to alter the mandates of MNDM or MNR with respect to the administration of mining lands or withdrawal orders."

The ministry confirms that the Great Lakes are withdrawn from mineral staking, based on the Order in Council from 1912. However, MNDM states that "due to technical limitations" with their online mapping database, the Great Lakes are not actually shown to be withdrawn from mineral staking. The ministry states that "as a technical compromise," members of the public accessing the online mapping database will now be provided with links that provide this information.

MNDM does acknowledge that it will be reviewing the *Mining Act*. The ministry states that the Premier, during the 2007 provincial election campaign, committed to "work with the mining industry, First Nation communities, environmental groups and other stakeholders to undertake a comprehensive and consultative review of the Act."

The ministry also notes that it will shortly "put in place a series of measures designed to allay concerns of Aboriginal communities, and provide guidance to industry and staff on the duty to consult." Additionally, MNDM states that a key element of this "transitional approach" is a pilot project that will enable the withdrawal of lands for the protection of significant cultural and burial sites of First Nations.

In April 2008, MNR denied this *EBR* application as "the public interest did not warrant a review" and that it does not appear that there will be harm to the environment if a review is not undertaken. The ministry states that the *Provincial Parks and Conservation Reserves Act* does not necessitate any amendments as it had undergone an extensive consultation process during its development and it had been recently enacted in 2006. Further, MNR stated that the *Mining Act* is outside of its legislative responsibility.

ECO Comment

The ECO is troubled that MNDM denied this *EBR* application. The ministry will shortly be reviewing the *Mining Act*, as directed by the Premier. The ministry made no mention of considering the applicants' concerns in this forthcoming review. The ECO concurs with MNR's rationale for not undertaking this review, although the ECO does not agree that the current system for withdrawing lands from mineral staking is adequate.

The ECO does not share MNDM's position that the failure to adequately withdraw lands from mineral staking has been a series of anomalies or isolated incidences that were not illustrative of a systematic problem. The ECO notes that it raised concerns about the need for legislative reform in our 2006-2007 Annual Report. In that report, the ECO recommended that MNDM "reform the *Mining Act* to reflect land use priorities of Ontarians today, including ecological values." Further, the ECO has extensively commented on the problems of mining disentanglement, noting in that same report "that lands should be withdrawn from staking when MNR identifies them as candidates for protection. Conflicts such as these are mainly attributable to the disjunction between laws, such as the *Public Lands Act* administered by MNR to manage Crown land, and laws such as the *Mining Act* administered by MNDM to facilitate mineral development."

The lakebeds of the Great Lakes and some major rivers were withdrawn from staking for mineral development by an Order in Council in 1912. This Order states that Lake Superior, the St. Marys River, Lake Huron (including Georgian Bay), the St. Clair River, Lake St. Clair, the Detroit River, Lake Erie, the Niagara River, Lake Ontario, the St. Lawrence River, and Lake Nipissing are withdrawn from mineral staking. This Order in Council remains in effect today. The ECO agrees with the applicants that such an environmentally significant directive should be explicitly reflected in the primary law governing mineral development in Ontario.

For ministry comments, see page 219.

4.5 – More Applications of Interest

Space does not permit us to summarize in this section of the Annual Report all the *EBR* Applications for Review or Investigation that were processed in 2007/2008. Readers are referred to the Supplement for a description of additional *EBR* Applications, including applications that raised the following questions:

Protection of Migratory Birds

Millions of migratory birds nest in Ontario's boreal forest every year. But do Ontario's forest management policies adequately protect migratory birds and their habitat from forestry operations? This was the central issue in an application for review of

Ontario's forest management planning process filed this year. The ECO comments on MNR's decision to deny this application, based largely on a number of "scheduled and planned" activities (see Supplement, Section 5.4.5).

Bicycle safety

Should municipal governments install bicycle lanes on existing and new roads? Are governments failing to promote environmentally sustainable transportation, and is this having an impact on the health and safety of cyclists and bike couriers? The ECO reviews how an application raising these questions and others was handled by MMAH and MOE (see Supplement, Section 5.3.2).

Herbicides and water health

Does routine spraying of herbicide spraying by forestry companies over large tracts of land adjacent to water pose a threat to aquatic life and to the people who rely on healthy aquatic resources in northern Ontario? Are there inconsistencies between legislation that protects water quality and regulations and policies that allow forest companies to apply herbicides over large tracts of timber? The ECO discusses these aspects of one application for investigation received this year (see Supplement, Section 6.1.9).

part five

the environmental registry

Part 5 – The Environmental Registry

The Environmental Registry is the main instrument for delivering the public participation provisions of the *Environmental Bill of Rights* (*EBR*). The Environmental Registry comprises an Internet site where ministries are required to post notices of environmentally significant proposals for policies, Acts, regulations and instruments. The public then has the opportunity to comment on these proposals before decisions are made. The ministries must consider these comments when they make their final decisions and explain how the comments affected the decisions. Final decisions on proposals, together with an explanation on how public comments affected those decisions, are also to be published on the Environmental Registry. In addition, the Environmental Registry provides a means for the public to inform themselves about appeals of instruments, court actions and other information about ministry decision-making. The Environmental Registry can be accessed at: www.ebr.gov.on.ca.

5.1 – Quality of Information

The Environmental Registry is only as useful as the information it contains. The *EBR* sets out basic information requirements for notices that ministries post on the Registry. The ministries also have discretion on whether to include additional information. Previous Annual Reports of the Environmental Commissioner of Ontario (ECO) have recommended that in posting information on the Environmental Registry, ministries should:

- use plain language;
- provide clear information about the purpose of the proposed decision and the context in which it is being considered;
- clearly state how the decision differs from the proposal, if at all;
- explain how all comments received were taken into account;
- provide a ministry contact name, telephone and fax number; and
- include hypertext links to supporting information whenever possible.

The ECO evaluates whether ministries have complied with their obligations under the *EBR* and exercised their discretion appropriately in posting information on the Registry. This ensures that ministries are held accountable for the quality of the information provided in Registry notices.

Comment Periods

The *EBR* requires that ministries provide the public with at least 30 days to submit comments on proposals for environmentally significant decisions. Ministries have the discretion to provide a longer comment period, depending on the complexity and level of public interest in the proposal.

The Ministry of the Environment (MOE) posted 12 out of 27 proposals for new policies, Acts or regulations for 45 days or more. The Ministry of Natural Resources (MNR) posted 18 out of 21 proposals for new policies, Acts or regulations for 45 days or more. The ECO commends MNR on its continued effort to increase the length of comment periods.

Adequate Time to Comment on Acts

Regulatory Modernization Act, 2007

The Ministry of Labour (MOL) began consultations on aspects of the *Regulatory Modernization Act*, 2007 (Bill 69) in 2001, in conjunction with the Ministry of the Attorney General. In response to an ECO request, MOL posted a proposal notice on the Environmental Registry for a 60-day comment period commencing June 16, 2006. The proposal notice included a detailed description of Bill 69, as well as a hypertext link to the text of the bill. The ministry also held discussions with a number of interested groups after the bill was introduced in the Legislature on February 27, 2006. MOL consulted with the Office of the Information and Privacy Commissioner to ensure that the proposed legislation complied with the *Freedom of Information and Protection of Privacy Act*. The ECO is satisfied with MOL's consultation process.

Brownfield legislative reform

The proposed changes to Ontario's brownfield legislative regime is an instance where the government should have provided greater opportunity for public comment. The proposal notice, posted on the Environmental Registry on January 16, 2007, for a 30-day comment period, outlined various legislative amendments under contemplation. Some commenters noted that certain aspects of the proposal were vague or overly broad. Others indicated their expectation that they would have an opportunity to provide further comments once the details and wording of the proposed legislative changes were developed.

Instead, brownfield legislative reform provisions were drafted into Bill 187, the *Budget Measures and Interim Appropriation Act*, 2007, which received first reading on March 22, 2007. Due to an exemption under the *EBR* for proposals that form part of a budget, notice of the brownfield reform provisions in Bill 187 was not required to be posted for public comment. At the ECO's prompting, the government voluntarily posted an information notice on May 3, 2007 (after the bill was referred for third reading), which described the brownfield reform package contained in Bill 187. However, no further opportunity for public comment or consultation was provided, and Bill 187 received Royal Assent on May 17, 2007.

While including the legislative brownfield amendments in Bill 187 ensured their quick passage, it effectively truncated the *EBR* public consultation process. The ECO commends the government for voluntarily posting an information notice on the Environmental Registry; however, it would have been preferable for the draft legislation to have been posted at an early stage for further public comment. At a minimum, additional consultation should have been conducted regarding the more controversial components of the proposed reform. While the legislative timetable may not have permitted a full 30-day comment period, the government could have posted the draft amendments to the legislation for a shorter comment period, consistent with the ECO's guidance in our 2000-2001 Annual Report.

Description of Proposals

Ministries are required to provide a brief description of proposals posted on the Registry. The description should clearly explain the nature of the proposed action, the geographical location(s), and the potential impacts on the environment. During this reporting period, descriptions of proposals for policies, Acts and regulations generally met the basic requirements of the *EBR*. The proposal notices provided brief and understandable explanations of the actions the ministries were proposing.

Access to Supporting Information

The majority of proposals for policies, Acts, and regulations posted on the Registry in 2007-2008 provided access to supporting information by listing a contact person, phone number and address. Prescribed ministries appear to be making much better use of "hypertext" links, which are an excellent aid to the public.

Environmental Impacts

The ECO has expressed concern in many previous Annual Reports that ministries are not adequately explaining the environmental impacts of proposals. Although the *EBR* does not legally require ministries to include this information, a description of the anticipated environment impacts provides the public with the information necessary to make informed comments on proposals.

Go Green: Ontarios Action Plan on Climate Change

The Go Green Plan was not posted for public comment in any form on the Environmental Registry. Some, but not all, of the measures in the Plan were individually posted as proposals on the Environmental Registry over the past few years. At a minimum, the Ministry of the Environment could have posted an information notice to inform the public, especially since there was no media release or government announcement at the time the Action Plan was released. The first reference to the Go Green Plan that the ECO could locate after it was posted on the Go Green website in August 2007 was a media release dated December 13, 2007, from Bali, Indonesia, where international climate change negotiations were being held. These actions and omissions may have confused the public about the status of the Go Green Plan and resulted in fewer Ontario residents knowing of its existence.

Description of the Decision

Once a ministry has made a decision on a proposal posted on the Registry, the *EBR* requires the minister to provide notice of the decision as soon as possible. The description of the decision in a Registry notice lets residents of Ontario know the outcome of the public consultation process. Prescribed ministries are making general improvements in the quality of their notices, particularly for policy-related decisions. However, MOE continues to omit hypertext links to a copy of an issued certificate of approval for some of the decision notices for approvals it posts on the Registry.

Explaining how public comments were addressed

The *EBR* requires the prescribed ministries to explain how public comments were taken into account in making a decision. Ministries should take the time and effort to summarize the comments, state whether the ministry made any changes as a result of each comment or group of related comments, and explain why or why not changes were made. Without this description, commenters will not know whether their comments were considered. In situations where there are a large number of comments, ministries should make an effort to summarize them appropriately and describe their effect on the decision.

Summary

The Environmental Registry usually provides the first point of contact for Ontario residents who want to participate in environmental decision-making. The Registry should be as user-friendly as possible. The suggestions contained in this and previous Annual Reports are intended to improve the quality of information on the Registry and to ensure that the public is able to participate fully in Ontario's environmental decision-making process.

For ministry comments, see page 219.

5.2 - Unposted Decisions

Under the *EBR*, prescribed ministries are required to post notices on the Environmental Registry to inform the public of environmentally significant proposals and to solicit public comment. Sometimes ministries fail to meet this legal obligation, and the ECO must make inquiries and report to the public on whether their *EBR* public participation rights have been violated.

During the 2007/2008 reporting period, a number of ministries did not comply with the *EBR* notice and comment requirements, including the Ministry of the Environment (MOE), the Ministry of Natural Resources (MNR), the Ministry of Energy, and the Ministry of Health and Long-Term Care. For a detailed description of all the unposted decisions reviewed by the ECO this year, refer to Section 1 of the Supplement to this Annual Report.

The ECO was disappointed at the number of instances in which MOE and MNR, in particular, failed to properly post environmentally significant policies, regulations or instruments as proposal notices, as required by the *EBR*. Highlighted below are two examples - one from MOE and one from MNR - where the ministries failed to uphold their *EBR*-mandated transparency and consultation requirements.

MNR's Forest Management Directives and Procedures

Over the past few years, MNR has been reviewing and revising many of the directives and procedures contained in the ministry's compendium of Forest Management Directives and Procedures (the "Compendium"). For example, in 2007, MNR added a new procedure to the Compendium entitled "Ground Application of Herbicides for Forest Management in Ontario (Interim)," which sets out buffer zone requirements for pesticide applications near water.

MNR had not posted proposal notices on the Registry for the public notice of and comment on the amendments to the Compendium, nor had MNR made the procedures and directives in the Compendium available to the public. Accordingly, the ECO wrote to MNR in July 2007, reminding the ministry of its obligations under the *EBR* to post a proposal notice on the Registry for any revisions to the Compendium that constitute environmentally significant policy.

The ministry responded to the ECO's letter stating that the majority of the procedures and directives in the Compendium are "administrative and/or financial in nature" and, therefore, do not need to be posted on the Registry. MNR further stated that the Compendium is "a work in progress," explaining that about half of the directives and procedures are "interim" or "preliminary, draft versions" for "internal use only" that are currently being reviewed and have not yet been approved.

However, MNR made a commitment to the ECO that, once this review is completed, the ministry would:

- post all approved forest management directives and procedures in the new Compendium on MNR's public website;
- post an information notice for the new Compendium on the Registry; and
- assess each "finalized" procedure for environmental significance and post a policy proposal notice on the Registry for those procedures that require a notice under the *EBR*.

MNR did, in fact, post a proposal notice on the Registry for its amended Forest Compliance Handbook (which is part of the Compendium) on February 1, 2008.

While the ECO is pleased by MNR's commitments to make the Compendium publicly available by posting it on MNR's website and to provide public notice of the new Compendium on the Registry, the ECO strongly disagrees with MNR's contention that "the majority of MNR's forest management directives and procedures are administrative and/or financial in nature." To the contrary, the ECO believes that many of these directives and procedures (such as those related to the application of herbicides) do constitute environmentally significant policy and are of considerable public interest.

Furthermore, as the ECO has stated in the past, policies described as "interim" or "draft for internal policy development purposes" are subject to the proposal notice requirements under the *EBR* if those policies are being used, applied or otherwise relied on, even if only on a temporary basis.

MNR's failure to post proposal notices for its forest management policies is a systemic problem that the ECO has repeatedly raised with MNR over the years (see, for example, pages 13-14 of the Supplement to the 2000-2001 Annual Report, page 5 of the Supplement to the 2001-2002 Annual Report, and pages 174-175 of the 2005-2006 Annual Report).

The ECO strongly urges MNR, as it continues its review of the forest management polices and directives, to rectify this problem and, going forward, to post all new or revised policies with any environmental significance as a proposal notice on the Registry, as required by the *EBR*, in order to provide a proper opportunity for the expression of public concerns.

MOE's amendments to Regulation 334 under the EAA

In September 2007, the Ontario government passed a new regulation (O. Reg. 536/07), amending the General Regulation 334, R.R.O. 1990, under the *Environmental Assessment Act* (*EAA*). O. Reg. 536/07 provides that the Minister of Municipal Affairs and Housing may issue Minister's Zoning Orders (MZOs) – which are legal instruments under the *Planning Act* that establish or amend land uses – in relation to projects subject to the *EAA*, before a proponent obtains environmental assessment (EA) approval.

MOE posted an information notice on the Registry advising the public of these amendments. The ministry stated that the regulatory amendments will have no negative environmental impacts, and that the regulation was made simply to "clarify" that MZOs are not subject to the prohibition in the *EAA* on granting other approvals prior to the EA approval.

The ECO wrote to MOE expressing disagreement with the ministry's interpretation of the regulatory amendments, as well as the ministry's decision to post the regulation as an information notice rather than a proposal notice. In response to the ECO's letter, MOE reiterated its view that the regulatory amendments merely change the sequencing of the MZO decision and the EA approval decision, and thus are "administrative in nature." Accordingly, MOE stated that it was under no obligation to post a proposal notice on the *EBR* with respect to these regulatory amendments.

The ECO remains unconvinced that the amendments to Regulation 334 under the *EAA* are "administrative in nature." The ECO believes that the decision to re-order the sequencing of approvals, and thus enable another provincial approval to be granted prior to the EA approval is clearly environmentally significant. These amendments provide yet another step in the gradual weakening of the EA process, strengthening the presumption that a "yes" will be the ultimate outcome of the EA process.

As a result of the clear environmental significance of these regulatory amendments, the ECO believes that this regulation should have been posted on the Registry as a regular proposal notice to provide the public with an opportunity for review and comment, as required by the *EBR*. A proposal notice (as opposed to an information notice) provides important additional requirements for the ministry to consider public comments before making its decision, to consider its Statement of Environmental Values, and to post a decision notice describing how the public comments were considered.

For further discussion on the ECO's concerns regarding the gradual weakening of the EA process, see Part 2.2 of this Annual Report.

For ministry comments, see page 219.

5.3 – Information Notices

Under the *EBR*, ministries have the option of posting "information notices" in cases where they are not required to post a formal proposal notice on the Environmental Registry for public comment. When ministries use information notices, they are not required to consider public comments, post a decision or explain the effects such comments had on that decision. In these respects, information notices are inferior to proposal notices. During the 2007-2008 reporting year, nine ministries posted a total of 53 information notices (in addition to the 25 repostings of previous notices and the 10 MNR notices related to Forest Management Plans).

Ministry	New Information Postings
Energy (ENG)	1
Environment (MOE)	13
Health and Long-term Care (MOHLTC)	1
Labour (MOL)	1
Municipal Affairs and Housing (MMAH)	7
Natural Resources (MNR)	10
Northern Development and Mines (MNDM)	10
Public Infrastructure Renewal (PIR)	2
Transportation (MTO)	8

The ECO reviews whether or not ministries use information notices appropriately and considers whether notices are clear and complete. Please refer to Section 2 in the Supplement to this report for a discussion of the appropriate use of information notices and for a complete description of each information notice posted on the Registry in 2007/08.

Good Use of Information Notices

Several ministries used information notices during this reporting period to inform the public about initiatives that are legally excepted from the requirement to post regular proposal and decision notices. For example, MOE posted several notices informing the public about reports produced by advisory committees that were not prescribed for posting under the *EBR*, including notice of a report issued by the Advisory Council on Drinking-Water Quality and Testing Standard on corrosion control and lead reduction in drinking water.

MOE also posted an information notice for a controversial application to develop a Multi-Use Recreational Facility (MURF) on a former waste disposal site. This application was exempt from the Registry posting requirements because it is part of a project subject to the *Environmental Assessment Act* (pursuant to section 32 of the

EBR). However, MOE posted the information notice to keep the public fully informed of the developments on this project of significant local interest.

MNR also made good use of an information notice by advising the public of the recommendations made by the Ontario Parks Board of Directors, an advisory committee to MNR, regarding "Lightening the Ecological Footprint of Logging in Algonquin Provincial Park," together with an invitation to comment. Over 8,000 comments were submitted to the ministry in response to this notice.

Inappropriate Use of Information Notices

On several occasions in 2007-2008, ministries inappropriately used information notices where proposal notices were required. For example, MNR should have posted a regular proposal notice for its new "Scaling Manual" for forestry operations. The revisions to the manual – which included a reduction in the allowable maximum diameter for tree tops left as waste – should provide for better wood utilization and reduce the amount of wood slash left as roadside waste or burned. However, all environmentally significant policy changes, including those with positive impacts, need to be posted as proposal notices on the Registry.

MOE posted an information notice for its "Sewer Use Best Management Practices Document for Industrial Discharges to Municipal Sewers." The ECO believes that this document relates to a, still undecided, 1998 proposal notice by MOE for a proposed "Model Sewer Use Bylaw." Accordingly, MOE should have posted this as a decision notice for the 1998 proposal in order to provide greater clarity and transparency. It should also have included an explanation of the ministry's decision to develop the Best Management Practices document instead of the Model Sewer Use Bylaw, or, if that is not the case, of the relation between this new document and the proposed Model Sewer Use Bylaw.

Ministry Decisions that are Not Prescribed

In 2007-2008, ministries posted 25 information notices relating to various types of environmentally significant decisions that fell under ministries or Acts that are not yet prescribed under the *EBR*. For example, PIR posted an information notice for its "Final Built Boundary for the Growth Plan for the Greater Golden Horseshoe, 2006"; the ministry is not yet prescribed under the *EBR*, despite the fact that the ECO has been requesting since 2004 that PIR be prescribed under the Act.

The ECO generally supports the ministries' approach to posting information notices for proposals and decisions that are not prescribed. However, the ECO notes that many of these initiatives were not legally required to be posted on the Registry for comment *only* because the Ontario government has been too slow to prescribe them under the *EBR*. The exceedingly slow progress made by the government in prescribing new ministries and laws under the *EBR* is a significant disappointment as the public continues to miss out on the full rights afforded under proposal notices in relation to many environmentally significant issues (such as the PIR proposal).

Accordingly, the ECO again urges the government to prescribe new ministries, laws and initiatives that are environmentally significant under the *EBR* within one year of implementation to ensure that environmentally significant decisions are appropriately posted. (See Section 9 of the Supplement to this Annual Report for a more detailed discussion of the issue of prescribing ministries and Acts).

For ministry comments, see page 219.

5.4 – Exception Notices

The *EBR* allows ministries, in very specific circumstances, to post an "emergency exception notice" or "equivalent public participation exception notice" to inform the public of a decision and explain why it was not posted for public comment. Under section 29 of the *EBR*, an emergency exception may be permitted in situations where a delay could result in a danger to the health or safety of any person, harm (or serious risk of harm) to the environment, or injury or damage to property. Under section 30 of the *EBR*, an equivalent public participation exemption may be permitted where the environmentally significant aspects of a proposal have already been (or are required to be) considered in another forum that provides an equivalent level of public participation. The ECO reviews whether ministries use exception notices appropriately.

In the 2007-2008 reporting period, ten exception notices were posted, all by the Ministry of the Environment (MOE). Half of these notices were acceptable uses of the "emergency" exception allowed by the *EBR*. However, the remaining five exception notices posted by MOE (discussed below) included inappropriate uses of the "equivalent public participation" exception. The ECO believes that these notices should have been posted as regular proposal notices to provide the public with full comment and appeal rights, as required by the *EBR*. (Refer to section 3 of the Supplement to this Annual Report for a description of all exception notices.)

MOE's use of the "equivalent public participation" exception

In June 2007, MOE posted three proposal notices on the Registry relating to three Permits To Take Water (PTTWs) issued to De Beers Canada Inc. for its Victor Diamond Mine Project in northern Ontario. The ministry provided a 30-day comment period for each proposal. A month later, the ministry removed the proposal notices, stating that the original posting of these notices was an error, and reposted the PTTWs as exception notices on July 18, 2007. This reversal in approach resulted in a loss of public consultation rights otherwise required by the *EBR*, as well as a loss of third-party appeal rights for the public.

MOE stated that it was relying on the "equivalent public participation" exception because the Victor Diamond Mine Project had already been considered under the *Canadian Environmental Assessment Act* (*CEAA*) process. In late 2007, MOE similarly posted two more exception notices relating to two Certificates of Approval (Cs of A) for sewage works for the Victor Diamond Mine Project.

The ECO wrote to MOE noting our disagreement with the ministry's view that the PTTWs and Cs of A did not need to be posted as proposal notices. Firstly, the ECO noted that, unlike the exception that is provided in section 32 of the *EBR* for instruments that are a step towards implementing a project approved by a decision made under the provincial *Environmental Assessment Act*, there is no similar *EBR* exception for instruments that relate to projects under the federal *CEAA* process.

Secondly, the equivalent public participation exception in section 30 of the *EBR* does not apply, as the particular instruments (including the specific terms and conditions set forth in these instruments, such as the pumping rates and duration of the permits) were not specifically considered under the *CEAA* process, and therefore, were not subject to public consultation.

The ECO notes that subsequent proposals for instruments related to the Victor Diamond Mine Project were posted on the Registry by MOE in May 2008 as regular proposal notices, with an opportunity for public comment and appeal. The ECO is pleased with the ministry's change in position.

For ministry comments, see page 219.

5.5 – Late Decision Notices and Undecided Proposals

When a ministry posts a notice of an environmentally-significant proposal for a policy, Act, regulation or instrument on the Environmental Registry, it must also follow up with a notice of its decision on the proposal, along with an explanation of the effect of public comment on the final decision. But sometimes, ministries either fail to post decision notices promptly or do not provide the public with updates on the status of older, still undecided proposals. In those cases, neither the public nor the ECO is able to tell whether the ministry is still actively considering the proposal, has decided to drop the proposal, or has implemented a decision based on the proposal while failing to post a decision notice. This reduces the effectiveness of the Registry, and makes it difficult for the public to rely on the Registry as an accurate source of information.

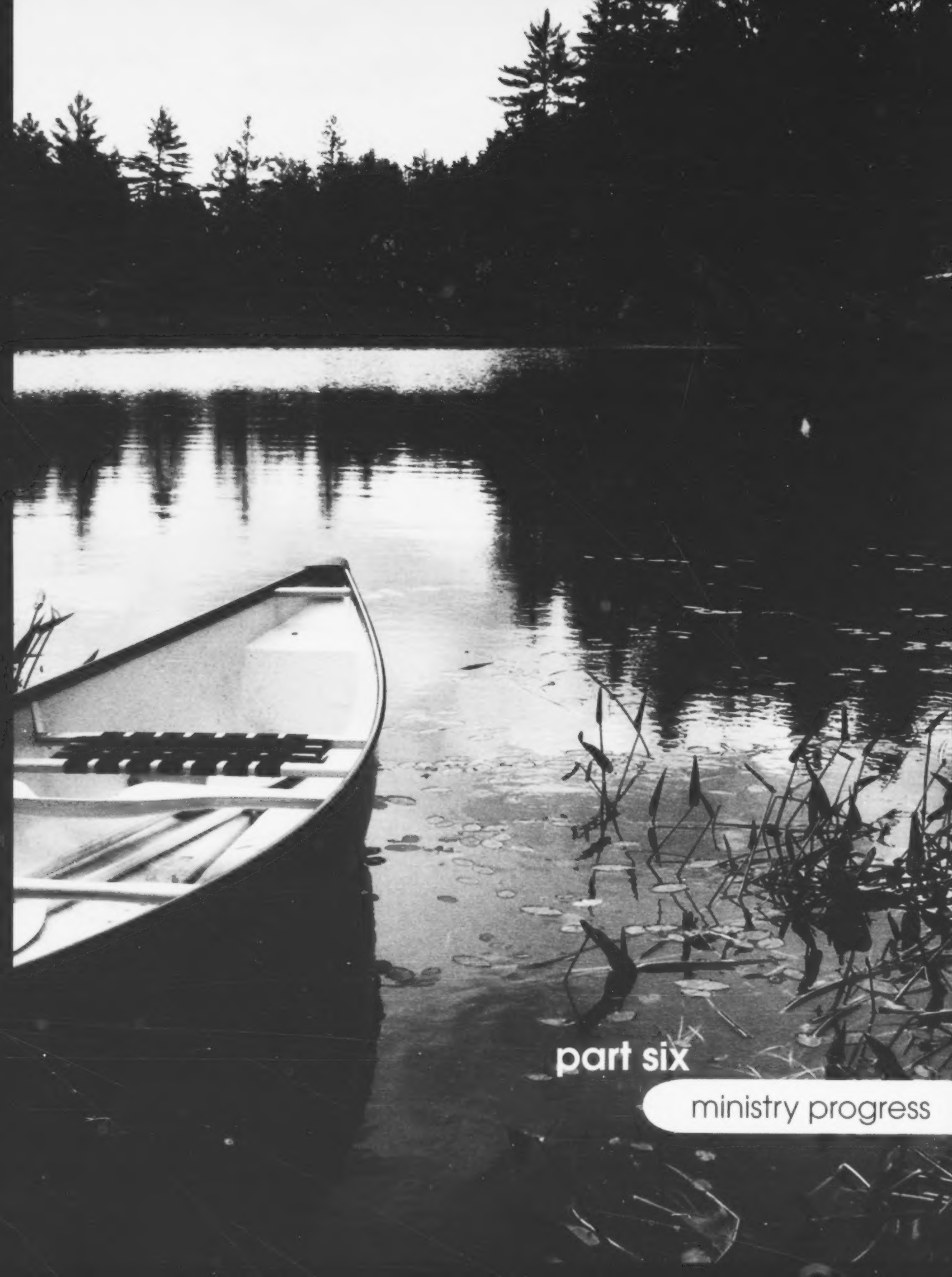
The ECO periodically makes inquiries to ministries on the status of proposals that have been on the Registry for more than a year, and suggests they post either updates or decision notices. Below is a small sampling of the many proposals for policies, Acts, regulations and instruments posted before March 31, 2007, and still found on the Registry in April 2008. Among these examples, the ECO notes that there are numerous undecided proposals that directly affect the application of the *EBR* and merit immediate attention:

- "Amendments to Ontario Regulation 73/94 (*EBR* General Regulation)," posted November 14, 2005, and prescribing the Ministry of Education under the Act;
- "Revised Statements of Environmental Values," posted July 27, 2005, and covering all ministries;
- "Regulation to prescribe the *Greenbelt Act*, 2005, for the *Environmental Bill of Rights* – Amendment to O. Reg 73/94," posted July 18, 2006; and
- "Regulation to prescribe the *Oak Ridges Moraine Conservation Act*, 2001, under the *Environmental Bill of Rights* (*EBR*) – Amendment to O. Reg 73/94, the General Regulation under the *EBR*," posted September 2, 2003.

The ECO also notes that the Ministry of the Environment (MOE) has dozens of proposal notices that have been on the Environmental Registry for more than five years. In failing to post decision notices, MOE is undermining the effectiveness of the *EBR* as a tool for the public to track the progress of decision-making, as well as undermining the ministry's own accountability. For example, MOE still has a proposal on the Environmental Registry for a "Drinking Water Source Protection Act" from 2004, although it abandoned this proposal when it proceeded with the proclamation of the *Clean Water Act* instead. MOE should update this notice to indicate a different approach was taken. In contrast, the ECO commends the Ministry of Natural Resources (MNR) for deliberately undertaking an internal process to ensure that proposal notices do not languish on the Environmental Registry.

In this section of our previous report, the ECO has repeatedly noted one specific undecided proposal by the Ministry of Northern Development and Mines (MNDM). "The Provincially Significant Mineral Potential Procedural Manual for Ontario" was proposed by MNDM in August 2002. The ECO believes that it is unacceptable that MNDM has not posted a decision notice in this case. This ministry's disregard for its *EBR* responsibilities, for what should be a routine matter, is troubling.

For ministry comments, see page 219.



part six

ministry progress

Part 6 – Ministry Progress

Part 6 of the ECO Annual Report covers the progress made on two fronts by ministries prescribed under the *EBR* and by the provincial government. The ECO follows up every year on the progress made by these ministries in implementing ECO recommendations contained in previous Annual Reports. This section also includes a summary of the advancement made by the province in prescribing ministries, new laws, and ministry processes under the *EBR*.

6.1 – Keeping the *EBR* in Sync with New Laws, Ministries and other Government Initiatives

As regular readers of ECO annual reports know, a major challenge facing the Ontario government and the ECO is to keep the *EBR* "in sync" with new laws and government initiatives, including the creation of new ministries. The ECO strives to ensure that the *EBR* remains up-to-date and relevant to Ontario residents who want to participate in environmental decision-making. The Commissioner and his staff constantly track legal and policy developments at the prescribed ministries and in the Ontario government as a whole, and encourage ministries to update the *EBR* regulations to include new laws and prescribe new government initiatives that are environmentally significant.

In our 2004-2005 Annual Report, the ECO outlined some of the reasons why it is necessary to constantly update the *EBR* regulations and recommended that new, environmentally significant government laws and related initiatives be prescribed under the *EBR* within one year of implementation. We have followed up on this recommendation in our 2007-2008 Annual Report and other recent annual reports. Although Table 1 ("Status of ECO Requests to Prescribe New Laws, Regulations and Instruments under the *EBR*") indicates some of the most glaring gaps and current inconsistencies in *EBR* coverage, it does not represent a comprehensive review. (For a more detailed review please see the Status Report in Section 9 of the Supplement to this Annual Report.)

As indicated in Table 1, there continue to be serious delays in making certain laws subject to the *EBR*. For example, the three-year delay in prescribing the *Ontario Heritage Act* (*OHA*) is unacceptable and has frustrated the intent and spirit of the *EBR*. The ECO is concerned about these lengthy delays; they deprive the public of their rights to participate in environmentally significant decisions, to ensure that Statements of Environmental Values (SEVs) are developed and then considered, to file leave to appeal applications, and to request *EBR* investigations and reviews. Moreover, the ECO is not legally empowered to subject ministry decision-making under these non-prescribed Acts to the same degree of scrutiny as would normally apply to decisions made under prescribed Acts and regulations.

In the 2007/2008 reporting period, the ECO observed some progress in expanding *EBR* coverage. In June 2007, the Ministry of Municipal Affairs and Housing (MMAH) and the Ministry of the Environment (MOE) completed work on prescribing the *Oak Ridges Moraine Conservation Act* (*ORMCA*) and the *Greenbelt Act*, as outlined in Table 1 below. The ECO commends the ministries for completing this work, but we note that it took more than five years to fully prescribe the *ORMCA* under the *EBR*. This delay was much longer than was necessary and, consequently, dozens of *ORMCA* instruments were not posted on the Registry for comment as regular proposal notices.

More progress is expected in the 2008/2009 reporting period. In early 2008, the Minister of the Environment advised the Commissioner that a proposal for regulatory amendments to O. Reg. 73/94 (the General Regulation under the *EBR*) would be posted in the spring of 2008. On April 18, 2008, MOE posted a proposal on the Registry indicating that the ministry intends to move forward on a package of amendments to O. Reg. 73/94 and, in June 2008, the regulatory changes were filed. The June 2008 regulatory amendments address many important and necessary changes to O. Reg. 73/94; however, many needed updates and changes described in the tables below will remain unaddressed by the proposed regulation.

For example, the ECO's 2006-2007 Annual Report recommended that MOE prescribe the *Clean Water Act* (*CWA*) under the *EBR* as quickly as possible to ensure that all new regulations under the *CWA* will be subject to the notice and comment requirements under the *EBR*, and to provide the public with the right to apply for reviews, investigations and leave to appeal in relation to the *CWA*. The ECO also urged MOE to include source protection plans (SPPs) issued under the *CWA* as prescribed instruments under the *EBR*, so that they will be posted for notice and comment and could be subject to appeal.

In its April 2008 proposal, MOE suggested that it will prescribe the *CWA* for the purposes of posting regulatory proposals and applications for review, but not for *EBR* investigations. Moreover, to date, MOE has not indicated it intends to prescribe SPPs as instruments by amending O. Reg. 681/94 (the Classification of Proposals for Instruments regulation, under the *EBR*). The ECO urges MOE to reconsider prescribing SPPs, given the ongoing public concern about source water protection.

Table 2 contains an update on the status of applications for review filed by the public to make certain ministries subject to the *EBR* or to expand the number of *EBR* processes that apply to a prescribed ministry. In our 2006-2007 Annual Report, we reported that the ministries appeared to be receptive to requests for review, submitted by members of the public under the *EBR*, to prescribe additional Acts and ministries. The ECO applauded this new receptivity. We note that MOE's June 2008 regulatory changes (referred to above) prescribed the Ministry of Transportation (MTO) for reviews under the *EBR*. This regulatory change implemented a request made by two Ontario residents in an *EBR* application for review filed in 2003. While this is a positive development, the delay in implementing this change is disappointing, especially in view of the key role that MTO plays in formulating public transit policies.

In early 2004, the ECO wrote to the Ministry of Public Infrastructure Renewal (PIR) requesting that the ministry be prescribed under the *EBR* and that the *Places to Grow Act* (*PGA*) be prescribed for regulation proposal notices and for applications for review under the *EBR*. The Deputy Minister for PIR advised the Commissioner that a proposal for regulatory amendments to O. Reg. 73/94 would be posted on the Registry forthwith, likely later that summer. Subsequently, the Ontario government enacted provisions in the *PGA* requiring the ministry to post information notices, rather than regular policy proposal notices, on the Registry about growth plans.

The ECO met PIR staff in early 2006 and were advised that work was ongoing. In early 2008, the Minister of the Environment advised the Commissioner that the April 2008 package of O. Reg. 73/94 amendments would make PIR subject to the *EBR*. However, as noted below, MOE's notice describing the proposed regulation did not include any references to PIR. The lack of progress in prescribing PIR under the *EBR* is a shocking abuse of process and a significant blow to transparency and accountability in environmental decision-making. PIR continues to work on growth management plans for some parts of southern and northern Ontario; these are plans with clear environmental significance that should be subject to public notice, review and comment, in accordance with the spirit and objectives of the *EBR*.

For ministry comments, see page 220.

Table 1

Status of ECO Requests to Prescribe New Laws, Regulations and Instruments under the *EBR*, as of August 2008

ACT, REGULATION OR INSTRUMENT (MINISTRY)	ECO REQUEST TO PRESCRIBE	STATUS AS OF AUGUST 2008 AND ECO COMMENT
***Clean Water Act, 2006* (*CWA*)** **Ministry of the Environment (MOE)**	In its 2006-2007 Annual Report, the ECO recommended that MOE prescribe the *CWA* under the *EBR* as quickly as possible to ensure that all new regulations under the *CWA* will be subject to the notice and comment requirements under the *EBR*, and to provide the public with the right to apply for reviews, investigations and leave to appeal. The ECO also urged MOE to prescribe source protection plans (SPPs) as instruments under the *EBR*.	MOE's April 2008 proposal indicated that the *CWA* would be prescribed for the purposes of posting regulatory proposals and applications for review. However, to date, MOE has not indicated it intends to prescribe SPPs as instruments under the *EBR*. The *CWA* was prescribed as proposed by O. Reg. 215/08 passed in June 2008.
***Endangered Species Act, 2007* (*ESA*)** **Ministry of Natural Resources (MNR) & MOE**	The ECO's 2006-2007 Annual Report recommended that MNR and MOE fully prescribe the *ESA, 2007* under the *EBR* for regulation-making and instrument proposal notices and applications for reviews.	MOE's April 2008 proposal stated that the *ESA, 2007* would be prescribed under sections 3, 6, 9 and 12 of O. Reg. 73/94, with an exception from sections 3 and 6 of the regulation for non-discretionary regulations made under s. 7 of the *ESA, 2007*. These amendments would also prescribe *ESA, 2007* as subject to the application for investigation and whistle blower provisions. The *ESA, 2007* was prescribed as proposed by O. Reg. 215/08 passed in June 2008
***Energy Conservation Leadership Act, 2006* (*ECLA*)** **Ministry of Energy (ENG) & MOE**	In September 2007, two applicants requested that ENG prescribe the *ECLA* for applications for review and proposals for new regulations. The applicants argue that this would mean that the ECO could then comment on the importance of adopting regulations under the Act, including one that would prohibit restrictive covenants that ban clotheslines.	In January 2008, ENG posted an information notice stating that it intended to develop a regulation that would prohibit restrictive covenants that ban clotheslines. ENG went on to note that the *ECLA* is not prescribed under the *EBR*. ENG invited comments on the proposal. The *ECLA* was prescribed for the *EBR* by O. Reg. 215/08 passed in June 2008

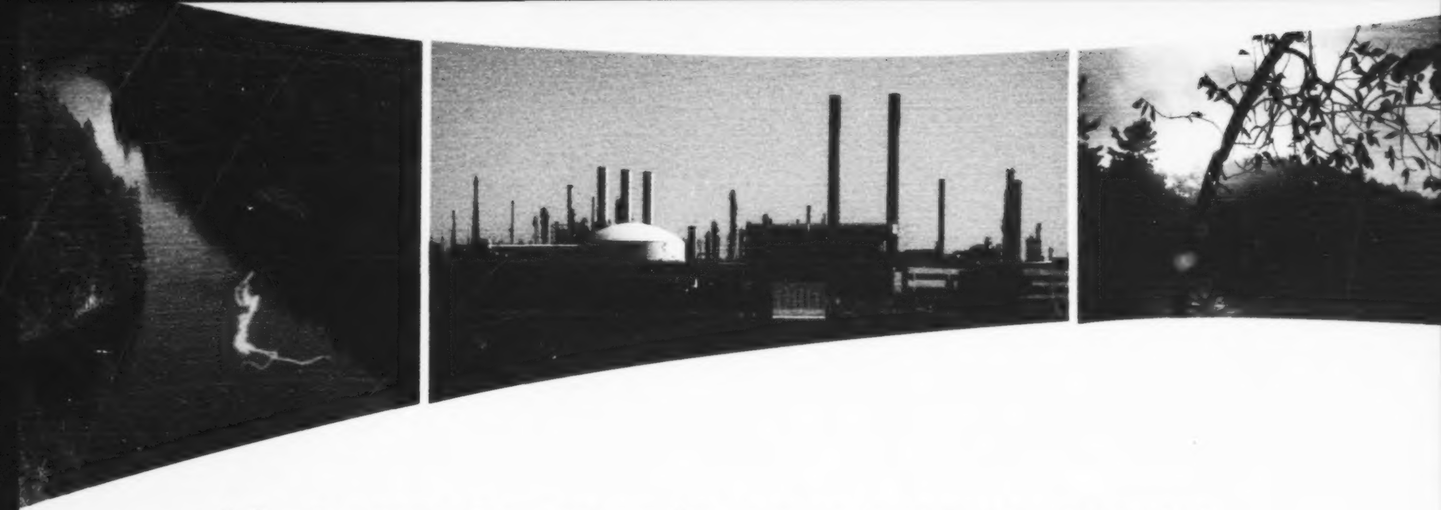
ACT, REGULATION OR INSTRUMENT (MINISTRY)	ECO REQUEST TO PRESCRIBE	STATUS AS OF AUGUST 2008 AND ECO COMMENT
Greenbelt Act, 2005 **Ministry of Municipal Affairs and Housing (MMAH) & MOE**	The ECO wrote to MMAH in April 2005 requesting that it prescribe the *Greenbelt Act* under the *EBR* for regulation and instrument proposal notices and applications for reviews.	On May 30, 2007, the *Greenbelt Act* finally was prescribed for regulation proposal notices (but not for instruments) and applications for review when the Ontario government filed O. Reg. 217/07, amending O. Reg. 73/94 under the *EBR*.
Health Protection and Promotion Act HPPA **Ministry of Health and Long-Term Care (MOHLTC) & MOE**	The ECO's 2004-2005 Annual Report recommended that MOHLTC and MOE prescribe the *HPPA* for regulation-making and related applications for reviews. The ECO was concerned that environmentally significant proposed *HPPA* regulations related to small drinking water systems would not otherwise be posted (MOE was proposing to transfer authority over small drinking water systems to *MOHLTC*, as recommended by the Walkerton Inquiry in 2002).	The *HPPA* was prescribed for the *EBR* by O. Reg. 215/08 passed in June 2008. The amendments require *MOHLTC* to post environmentally significant proposed *HPPA* regulations related to small drinking water systems on the Registry, and make regulations made under those provisions subject to the application for review and whistle blower provisions under the *EBR*.
Oak Ridges Moraine Conservation Act, 2001 (ORMCA) **MMAH & MOE**	The ECO wrote to MMAH in December 2001 requesting that it prescribe the *ORMCA* under the *EBR* for regulations and instrument proposal notices and applications for reviews.	On May 30, 2007, the *ORMCA* was prescribed for instrument proposal notices with the filing of O. Reg. 216/07, amending O. Reg. 681/04 under the *EBR*. The ECO commends MMAH and MOE for making this overdue regulatory change.
Ontario Heritage Act OHA **Ministry of Culture (MCL) & MOE**	The *OHA* is the legislative framework for heritage conservation in Ontario. In 2005, the *OHA* was amended to formally recognize the natural environment conservation function of the Ontario Heritage Trust (OHT). In June 2005, the ECO wrote to MCL requesting that it prescribe the *OHA* for regulation proposal notices and for applications for review under the *EBR*. ECO and MCL staff also discussed this issue at an August 2007 meeting about prescribing the OHT.	Prescribing the *OHA* was not included in the MOE's April 2008 proposal. In July 2008 the Deputy Minister of MCL wrote to the ECO and explained her ministry had completed its review and will be working with MOE to prescribe the *OHA* for the purposes of posting proposals for regulations. The ECO commends MCL for completing its review and agreeing to make this regulatory change.

Table 2

Status of Public and ECO Requests to Prescribe New Ministries, Agencies and *EBR* Processes as of August 2008

MINISTRY OR PROCESS	ECO OR ONTARIO RESIDENT REQUEST TO PRESCRIBE	STATUS AS OF AUGUST 2008 AND ECO COMMENT
Making the Ministry of Transportation subject to the application for review process **Ministry of Transportation (MTO) & MOE**	In June 2003, two applicants requested that MTO be made subject to Part IV of the *EBR* which, if granted, would permit residents of Ontario to request reviews of MTO's policies and prescribed Acts, regulations, and instruments (permits, licences etc.) and to ask MTO to review the need for new Acts, regulations and policies.	In September 2005, MOE recommended prescribing MTO for the purposes of applications for review. For the full comment on this application for review, please see the Supplement to the 2005-2006 ECO Annual Report. MTO was prescribed for reviews by O. Reg. 215/08 passed in June 2008.
Making the Ministry of Aboriginal Affairs Subject to the *EBR* **Ministry of Aboriginal Affairs (MAA) & MOE**	MAA was established by the Ontario government in November 2007 with a mandate to protect the rights of aboriginal peoples, and promote the health and economic well-being of Aboriginal Ontarians. In November 2007, the ECO wrote to MAA requesting that the ministry be prescribed for SEV consideration, Registry notice and comment, regulation proposal notices and for applications for review under the *EBR*.	Prescribing MMA was not included in the MAA's April 2008 proposal. The ECO urges MOE and MAA to ensure that the ministry is prescribed under the *EBR* before the end of 2008.
Making the Ministry of Public Infrastructure Renewal subject to the *EBR* **Ministry of Public Infrastructure Renewal (PIR) & MOE**	PIR was established by the Ontario government in November 2003 with a mandate to support upgrades to roads, transit systems and other public infrastructure and to promote sound urban and rural development. To support this vision, in the spring of 2005, the Ontario government enacted a major piece of PIR legislation titled the *Places to Grow Act (PGA)*. In early 2004, the ECO wrote to PIR requesting that the ministry be prescribed and that the *PGA* be prescribed for regulation proposal notices and for reviews. Although the *PGA* requires that notices of a proposed growth plan be posted on the Registry, PIR is currently unable to post these notices as regular policy proposals and the ECO is not mandated to fully review them. Since July 2004, PIR has posted more than eight information notices on the Registry.	The ECO met PIR staff in early 2006. In early 2008, MOE advised the ECO that a package containing amendments to O. Reg. 73/94, which would make PIR subject to the *EBR*, would be posted on the Registry in the spring of 2008. Prescribing PIR was not included in the MOE's April 2008 proposal. On June 20, 2008, the Premier announced that the former ministries of Energy and Public Infrastructure Renewal will be merged into the Ministry of Energy and Infrastructure. The new ministry is currently reviewing how the *EBR* should apply to its work.

MINISTRY OR PROCESS	ECO OR ONTARIO RESIDENT REQUEST TO PRESCRIBE	STATUS AS OF AUGUST 2008 AND ECO COMMENT
Making the Ontario Heritage Trust subject to the *EBR* **Ministry of Culture (MCL), MNR & MOE**	The *Ontario Heritage Act (OHA)* is the legislative framework for heritage conservation in Ontario. In 2005, the OHA was amended to formally recognize the natural environment conservation function of the Ontario Heritage Trust (formerly the Ontario Heritage Foundation). The Ontario Heritage Trust (OHT), an agency of MCL, is the province's lead heritage agency, and holds in trust a portfolio of more than 130 natural heritage properties, including over 90 properties that are part of the Bruce Trail. Protected land includes the habitats of endangered species, rare Carolinian forests, wetlands, and sensitive features of the Oak Ridges Moraine. In March 2006, ECO wrote to MCL requesting that the OHT be prescribed for environmentally significant decisions. This would include SEV consideration and Registry notice and comment for proposal notices for Acts and policies. Such an approach would ensure that future changes to the Natural Spaces Land Acquisition and Stewardship Program (NSLASP) now administered by the OHT would be posted on the Registry for comment. For further detail on the amendments to the *OHA* and the OHT, see the ECO 2005-2006 Annual Report, pages 76-79.	The ECO's 2005-2006 Annual Report (page 79) recommended that the OHT become an *EBR*-prescribed agency. Prescribing the OHT was not included in the MOE's April 2008 proposal. In July 2008, MCL reconfirmed that it will not be proposing to prescribe the OHT under the *EBR*. MCL continues to believe that, as ministries are responsible for policy matters within the scope of the *EBR* and as MCL is prescribed, there is no need to prescribe the OHT under the *EBR*. MCL's and MOE's view is that agencies, boards and commissions are not included under the EBR. MCL will continue to emphasize with OHT the importance of appropriate and timely consultation/information-sharing with stakeholders and the public on OHT activities. The ECO is very disappointed by MCL's decision to not prescribe the OHT and feels that the current funding, policy-making and reporting relations and functions are confused and lack transparency because they are fragmented between MNR, MCL and the OHT. The ECO notes that the Minister of Culture retains important decision-making powers and functions related to the work of OHT.



6.2 – Progress Report on Statements of Environmental Values (SEVs)

The *Environmental Bill of Rights* (*EBR*) requires each prescribed ministry to develop a Statement of Environmental Values (SEV) to guide its decision-making. Each ministry's SEV outlines how that ministry applies and considers the purposes of the *EBR* in its environmental decision-making, along with social, economic, scientific and other factors. Ministries are required to consider their SEVs whenever environmentally significant decisions are made and the ECO is required to report annually on ministry compliance with SEVs.

SEVs have been under revision and the ECO has requested an update on the planned schedule for finalizing them. Draft SEVs for most of the ministries were posted on the Environmental Registry on July 27, 2005, under Registry # PA05E0016. The ECO was previously advised to expect that these SEVs would be finalized by June 2007. The Ministry of the Environment (MOE) has said that it is proposing that ministries adopt the draft SEVs as final, and that a decision notice reflecting this be posted on the Registry in the spring of 2008. A director level working group will guide final implementation.

Two ministries did take some action in 2007 towards revising their SEVs. On April 2, 2007, draft SEVs for the Ministry of Government and Consumer Services (MGCS) and the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) were posted for a 45-day comment period. These SEVs are now ready for final approval, along with those from the other 11 ministries.

In direct response to comments made by the ECO, MOE has prepared training materials to support ministry staff involved in decision-making using its new SEV. MOE also has reviewed its business process to support a more systematic application of its SEV. These support materials will be shared with other ministries.

For ministry comments, see page 220.

6.3 – Ministry Responses to Past ECO Recommendations

Screening for Aggregate Extraction Proposals

In our 2006-2007 Annual Report, the ECO recommended that the province develop a process under the *Aggregate Resources Act* (*ARA*) for screening out, at an early stage, proposals for pits and quarries that conflict with identified natural heritage or source water protection values.

In March 2008, the Ministry of Natural Resources (MNR) responded that the existing approvals process is adequate, stating that,

> "the ARA and its regulations (Aggregate Resources of Ontario Provincial Standards) establish the basis for informed decision-making by requiring up-front consideration of all relevant social, environmental and economic factors and for providing opportunities for public consultation on decisions which are fair for all affected participants including applicants, stakeholders and the wider public. The ARA, in requiring lands to be zoned for mineral aggregate extraction prior to the granting of a licence, ensures that land use planning processes are respected."

The ECO remains concerned that such measures do not afford adequate protection for natural heritage features or source water resources. Nor do they offer concerned stakeholders a formal early stage screening opportunity to get a "no" answer on inappropriate proposals.

Rehabilitation of Pits and Quarries

In our 2006-2007 Annual Report, the ECO recommended that MNR improve the rehabilitation rates of Ontario pits and quarries by:

- introducing stronger legislation with targets and timelines;
- applying up-to-date rules to grandfathered licences; and
- further strengthening the ministry's own field capacity for inspections.

In March 2008, MNR advised the ECO that it took a significant step in 2007, designating additional private lands under the *Aggregate Resources Act*. In addition, fees paid by the industry were increased to strengthen/improve staff capacity within the ministry (i.e., 17 newly funded positions) in order to support enhanced rehabilitation, enforcement and compliance functions. The ministry will continue to monitor the workload of MNR staff to determine whether sufficient capacity has been established. MNR has also begun the process of systematically notifying licensees within the newly designated areas under the *ARA* regarding the requirement to prepare a site plan and to provide assistance where necessary.

Land Application of Sewage Biosolids

In our 2006-2007 Annual Report, the ECO recommended that the Ministry of the Environment (MOE) and the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) develop quality standards that support land application of stable "pathogen-free" sewage biosolids. MOE and OMAFRA posted proposed changes to the regulatory framework for the land application of non-agricultural source material (NASM), including biosolids, on the Registry (#010-1436) for public consultation that closed January 5, 2008.

The proposal would include updating the existing standards that support land application of NASM, based on the quality of the material being land applied. The improved regulatory framework outlines two categories of pathogens. Standards have been developed that reflect the risk that the materials pose. MOE advises that the proposed changes to the regulatory framework and standards were developed by technical experts at OMAFRA and MOE who have designed the current framework to ensure that environmental protection is not compromised, while at the same time removing the regulatory overlap between the *Environmental Protection Act* and the *Nutrient Management Act*.

Untreated Septage

The ECO requested an update on MOE's commitment to ban the practice of land application of untreated septage (i.e., hauled sewage) by 2007. This commitment was set forth in a proposal (RA02E0035) initially posted on the Registry in December 2002 and which has remained at the proposal stage for five-and-a-half years. The MOE last provided an update on this issue in March 2006, as described in the ECO's 2005-2006 Annual Report (page 198).

MOE responded in March 2008 that Ontario remains committed to ending the spreading of untreated septage on land. As noted in the 2005-2006, Ontario currently lacks sufficient capacity to treat the septage. MOE has been making progress toward the development of septage treatment capacity through investments in infrastructure, the study of alternative treatment options, and the development of environmental protection standards.

The government also has made infrastructure investments of more than $50 million in sewage treatment plant upgrades, some of which are designed specifically to install the necessary septage treatment capacity. In addition, MOE has been working with municipalities, the University of Guelph and the septage haulers' association to develop alternate cost-effective septage treatment options, such as composting, lagoon treatment and "Geotube" dewatering technologies. There are currently eight technical projects underway looking at a variety of septage management technologies.

MOE and OMAFRA are still working on three draft guidelines that outline science-based standards for the treatment of septage, including land application, alkaline stabilization and the use of dewatering trenches. This work has been ongoing for at least two years.

Wetland Identification and Evaluation

In our 2006-2007 Annual Report (pages 38-39), the ECO requested that MNR significantly speed up the process of wetland identification and evaluation, and ensure that provincially significant wetlands (PSWs) are incorporated into municipal official plans. In March 2008, MNR responded that it has entered into an agreement with Carleton University to conduct research on the evaluation of wetland functions and values using remote sensing and geographic information systems (GIS).

In addition, MNR is currently updating portions of its wetland evaluation manuals to incorporate new science, information and technology. MNR's Southern Ontario Land Resource Information System (SOLRIS) is due to be completed in 2008. According to MNR, SOLRIS is a useful tool for identifying and estimating the extent of unevaluated wetlands, which will facilitate the wetland evaluation process. MNR makes maps of PSWs available to municipalities either directly or through Land Information Ontario and the Ontario Geospatial Data Exchange. MNR is also working with stewardship partners to provide wetland conservation messages to municipal audiences.

The ECO is concerned that MNR is focusing on speeding up the wetland evaluation process only through the use of GIS, and is not investing in the field work that is needed to verify and substantiate the GIS mapping results. The ECO will continue to monitor the process of updating the wetland evaluation manuals, but is concerned with the length of time that this process is taking. The ECO is also concerned that the provision of wetland mapping to municipalities is not being done on a consistent and systematic basis, but relies upon individual municipalities taking the initiative to stay abreast of what MNR is doing.

Protection of Provincially Significant Wetlands

In our 2006-2007 Annual Report (page 43), the ECO requested that the Ministry of Municipal Affairs and Housing (MMAH) amend the Provincial Policy Statement (PPS) to prohibit new infrastructure, such as highways, in provincially significant wetlands unless there are no reasonable alternatives and it has been demonstrated that there will be no negative impacts on the ecological functions of the wetlands. The ECO also requested an update from MNR on this issue.

MMAH responded that the importance of balancing natural heritage protection with the infrastructure needed to support Ontario's communities is recognized in the PPS. The ministry also replied that the environmental assessment process considers the protection of natural features, as well as alternative options and, where appropriate, mitigation strategies to address impacts. The next review process for the PPS will be initiated no later than 2010 and, at that time, a review of all policies will be undertaken.

MNR responded that it is partnering with other agencies to undertake a wetland conversion analysis that will compare current trends in wetland loss to estimates prepared in 1987. MNR states that this will help determine if current protection policies are effective.

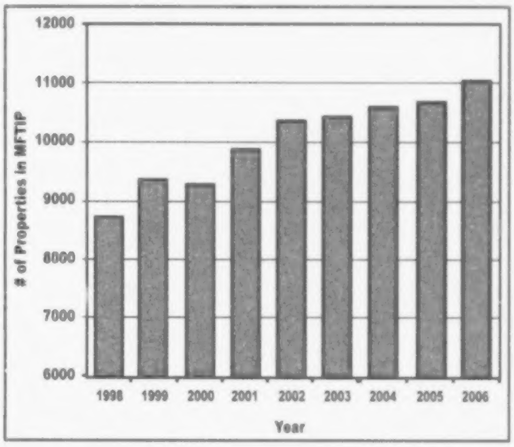
MNR has also noted that staff worked with the Ministry of Transportation (MTO) to provide input to MTO's Environmental Standards Project. The ECO has expressed some concern with the documents and guides that are part of this project. The ECO reviews the Environmental Standards Project in Section 4.23 of the Supplement and in Part 3.11 of this Annual Report.

Managed Forest Tax Incentive Program

In our 2003-2004 Annual Report, the ECO recommended that MNR ensure that the Managed Forest Tax Incentive Program (MFTIP) does not provide a financial incentive to clear forested tracts of land in southern Ontario. In 2007-2008, the ECO expressed further interest in how well this program has been running and if MNR had any statistics available on the effectiveness of this program in encouraging landowners to maintain their properties in a forested state.

MNR reported that a new approach to assessing MFTIP properties was initiated in 2006. Generally, properties that are entered into the program receive a reduction in property taxes of 75 per cent to 92 per cent for eligible areas. This new approach has resulted in managed forest lands being taxed at a rate similar to agricultural lands, removing any property tax benefit if managed forest lands are converted to agricultural lands. Additionally, these changes removed any property tax barrier for the reforesting of abandoned farmlands. For the most part, landowners and stakeholders are pleased with the changes made to address the property assessment issues. MNR commented that some municipalities, particularly small rural communities with lower tax bases, have expressed concern that the MFTIP shifts an unfair burden of the cost of a provincial program onto local taxpayers.

MNR provided statistics about program participation (see chart). Notably, the growth in the number of program participants slowed between 2002 and 2005 because of changes in the program that were in effect for that period. MNR considers the recent growth in landowner participation to be an indicator of the ef-



fectiveness of the new assessment approach of 2006. Landowner participation has increased since 2006. By 2007, over 11,000 properties were enrolled, representing a jump of 3.5 per cent over 2006 and resulting in almost 780,000 hectares (1.9 million acres) of forest being managed under the program.

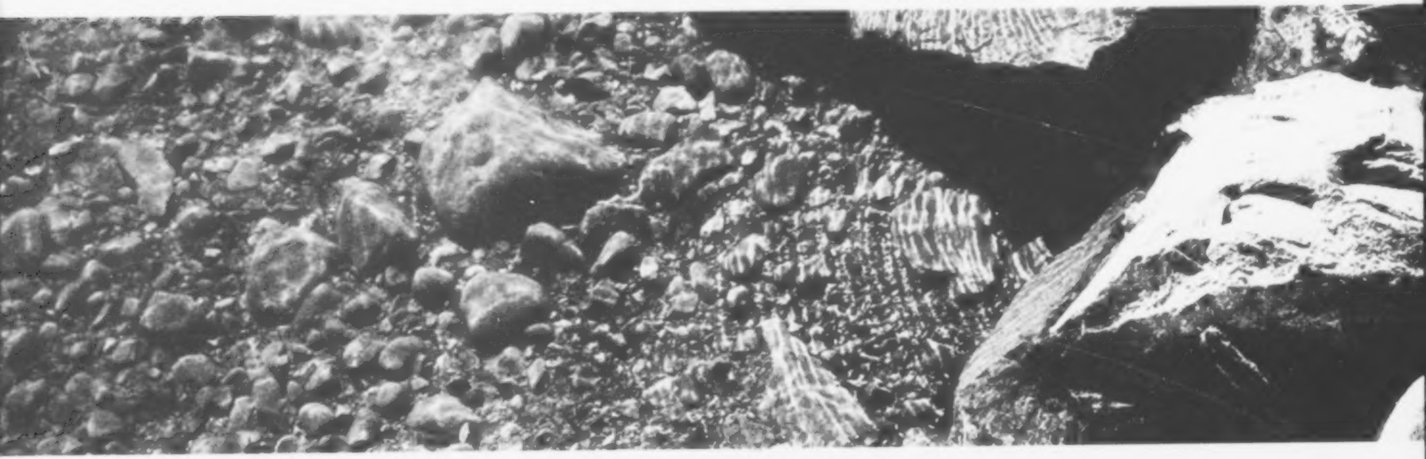
Mineral Development

In our 2006-2007 Annual Report, the ECO recommended that the Ministry of Northern Development and Mines (MNDM) "reform the *Mining Act* to reflect land use priorities of Ontarians today, including ecological values." In March, 2008, MNDM stated that "the government believes that as the needs of modern society evolve, the *Mining Act* needs to be reviewed and periodically amended to ensure that it keeps pace." In April 2008, the Premier said he is prepared to move forward with this review.

The ministry stated that it is reviewing the legislation, guided by the goals set out in Ontario's Mineral Development Strategy. In our 2006-2007 Annual Report, the ECO noted that this strategy "provides few details as to how the ministry will safeguard the environment" and it "all but ignores that mining is but one of many possible land uses in northern Ontario."

Northern Boreal Forest Management

In our 2002-2003 Annual Report, the ECO recommended that MNR "should carry out a thorough assessment of forest management approaches that are ecologically suited to the northern boreal forest and make the research results available to the public." Further, in our 2006-2007 Annual Report, the ECO noted that "evidence suggests that the existing forestry guidelines and policies being applied in the AOU (Area of the Undertaking) have not proven to be effective in mitigating the impacts on some ecological values, such as caribou. Moreover, commercial forestry in the northern boreal – if it is to be permitted at all – requires different approaches than those employed in the south."



In March 2008, MNR reported that it is currently seeking *Environmental Assessment Act* coverage for forest management in the Whitefeather Forest through a request for a Declaration Order. The ministry stated that forest management practices that are ecologically suited to the boreal forest are already available in the forest management guides, regulated under the *Crown Forest Sustainability Act*. MNR also states that it has been collecting and assessing information regarding forest ecosystem classification, forest growth and succession, and caribou habitat in the northern boreal initiative focus area since 2000.

Crown Land Management

In our 2006-2007 Annual Report, the ECO recommended that "MNR reform the *Public Lands Act* to create a planning system that provides MNR with the tools to better protect ecological values on all Crown lands." In replying to an ECO request for an update, MNR replied that a review of the Act deserves serious consideration to ensure that the *Public Lands Act* provides comprehensive and effective management of Crown land, including provisions for land use planning.

Prescribed Burns

The ECO requested an update on the recommendation in our 2004-2005 Annual Report that MNR require forestry companies to utilize prescribed burns, where appropriate, while outlining a direct and supporting role for the ministry in the process. The ECO also requested an update on the number and total area of prescribed burns that were both planned and carried out in 2007. MNR stated that it is currently reviewing its prescribed burn policy and the associated planning manual.

MNR reported that there were 43 planned prescribed burns in 2007, covering 1,245 hectares. However, the ministry cancelled or postponed more than half of these. As a result, only 345 hectares across all of Ontario underwent a prescribed burn in 2007. The ECO notes that there has been a significant decline, by approximately two-thirds, in the total area proposed for prescribed burns between this year and last. Further, all but two of the successfully completed prescribed burns in 2007 were located in southern Ontario.

Aquaculture Policy

In our 2004-2005 Annual Report, the ECO reported on MNR's progress in developing aquaculture policy (see page 82 in the Report, and page 161 in the Supplement). ECO reported that a key policy, "Aquaculture on Crown Land," was not released concurrently with other policies released in August 2004. MNR advised ECO in March 2008 that second drafts of nine discussion papers, posted as first drafts on the Registry in March 2007, have now been prepared. Work on the next draft of the Decision Support Tool and Coordinated Guide is now underway. The Environmental Registry posting for this product is expected to be updated with a second comment period and public consultation in late summer/fall 2008.

Sustainable Transportation Strategy

In our 2005-2006 Annual Report, the ECO recommended that "MTO take the lead with MMAH and MOE and collaborate on a strategy to reduce the environmental impact of the transportation sector in Ontario, hold public consultations on the strategy, and post a strategy on the Environmental Registry."

MTO advised the ECO in March 2007 that it had begun working on a sustainable transportation strategy for Ontario. MTO provided an update in March 2008: "MTO has established a Sustainable Transportation Policy Office within the Policy and Planning Division. This office is currently leading the Green Vehicle initiatives announced as part of the Go Green Plan at MOE. Once the Go Green Vehicle Initiatives have been defined, this office will be working across the ministry and with other ministries to develop a sustainable transportation plan for the ministry." It appears to the ECO that while MTO has established an office, that office is not currently developing a province-wide sustainable transportation strategy.

In addition, the Ontario government established Metrolinx in 2006, an agency with the mandate to develop an integrated, sustainable transportation strategy, but with a clear regional focus limited to the Greater Toronto Area.

Road Salts

In our 2006-2007 Annual Report, the ECO recommended that MOE develop a comprehensive, mandatory, province-wide road salts management strategy to ensure aquatic and terrestrial ecosystems are protected from the effects of excess sodium and chloride loadings.

Both MOE and MTO advise that they are working in support of Environment Canada's Code of Practice for the Environmental Management of Road Salts. The Code of Practice recommends that road salts users develop Salt Management Plans to achieve reductions in salt use and implement Best Management Practices in the areas of salt application, salt storage and snow disposal. MOE states that more than 200 road authorities participate in this Code.

MOE is also a partner in the funding of a two-year environmental monitoring study (running from January 2008 to December 2009) in the Regional Municipality of Waterloo, an area known to experience the negative environmental impact of road salt usage. A multi-disciplinary team of expert scientists, under the direction of the University of Waterloo, is undertaking the study, with a report anticipated in August 2009. The findings of the study will be presented at an international conference on winter road management, salting and alternatives, to be hosted by the University of Waterloo in May 2009. The ministry will review the study results and the conference proceedings, as well as a review of Environment Canada's Code of Practice scheduled for 2009; based on these assessments, it will consider the need for regulatory changes at that time.

MTO advised that it is working with the Ontario Road Salt Management Group (ORSMG) to develop and share expertise and experience on salt management. MTO, together with ORSMG and the Ontario Good Roads Association (OGRA), have researched de-icing technology and shared information on salt management through various events, workshops and open houses. In addition, MTO develops, produces and distributes various training programs through OGRA.

Environmental Training Program

In March 2006, MTO provided the ECO with an update on the Environmental Standards Project (ESP) (see the 2005-2006 Annual Report, page 202), and noted that a comprehensive training program would follow the completion of the ESP. ECO requested an update on this training from MTO. MTO advised that the MTO Environmental Standards Project Team has delivered an intensive two-day training session for all MTO environmental staff responsible for administering the new policy documents developed under the ESP.

A document entitled *Environmental Reference for Training* was developed to provide information to environmental staff, consultants, construction contract administrators, and contractors on the environmental issues related to highway construction projects. MTO also has developed an *Environmental Standards and Practices Overview for Users* document to explain the ESP process to consultants.

Commencing in March 2008, MTO will be implementing an Environmental Management System (EMS) for the ministry's environmental policy function, based on elements of ISO 14001. The EMS includes an Environmental Management Policy Statement that commits the ministry to maintaining compliance with environmental laws in the planning, design, construction and operation and maintenance of provincial highways. The ECO reviews the ESP in Part 4.23 of the Supplement and in Part 3.11 of this Annual Report.

Air Quality

The ECO requested an update on MOE's policy plans to address local air quality "hot spots," background concentrations, and cumulative or synergistic effects – above and beyond the regulatory reforms introduced through O. Reg. 419/05. The ECO's 2005-2006 Annual Report (pages 94-95) observed that the new rules have only a limited ability to deal with local "hot spots," such as neighbourhoods where several types of heavy industry are clustered together. MOE acknowledged when the regulatory reforms were finalized that more work is required on these topics.

MOE responded in March 2008 that it is considering how best to consider cumulative effects. MOE sets air standards for individual substances that are enforced on an individual facility basis. As part of O. Reg. 419/05, the ministry introduced 59 new or updated air standards in less than two years – the most far-reaching revision of air contaminant standards in over 30 years. In 2007, the ministry began to undertake compliance promotion work pertaining to O. Reg. 419/05, so as to inform targeted emitters of the new legal requirements and help ensure that compliance with air standards is achieved by the dates set out in the regulation. MOE noted that O. Reg. 419/05 introduced many new legal instruments that can be used for compliance and enforcement purposes. For example, the ministry may target multiple heavy industries within an airshed and assess whether or not these facilities are in compliance with health and environmental based standards under O. Reg 419/05, as well as with ministry guidelines. The ECO will continue to monitor whether MOE can effectively apply its new legal tools to target cumulative effects and local "hot spots."

MOE also noted that ministry staff has met several times with the Sarnia Aamjiwnaang First Nation (AFN), which is located within the Sarnia industrial area and which has expressed concern over cumulative air impacts in their airshed. MOE's aim is to initiate an O. Reg. 419/05 pilot project in the Sarnia area.

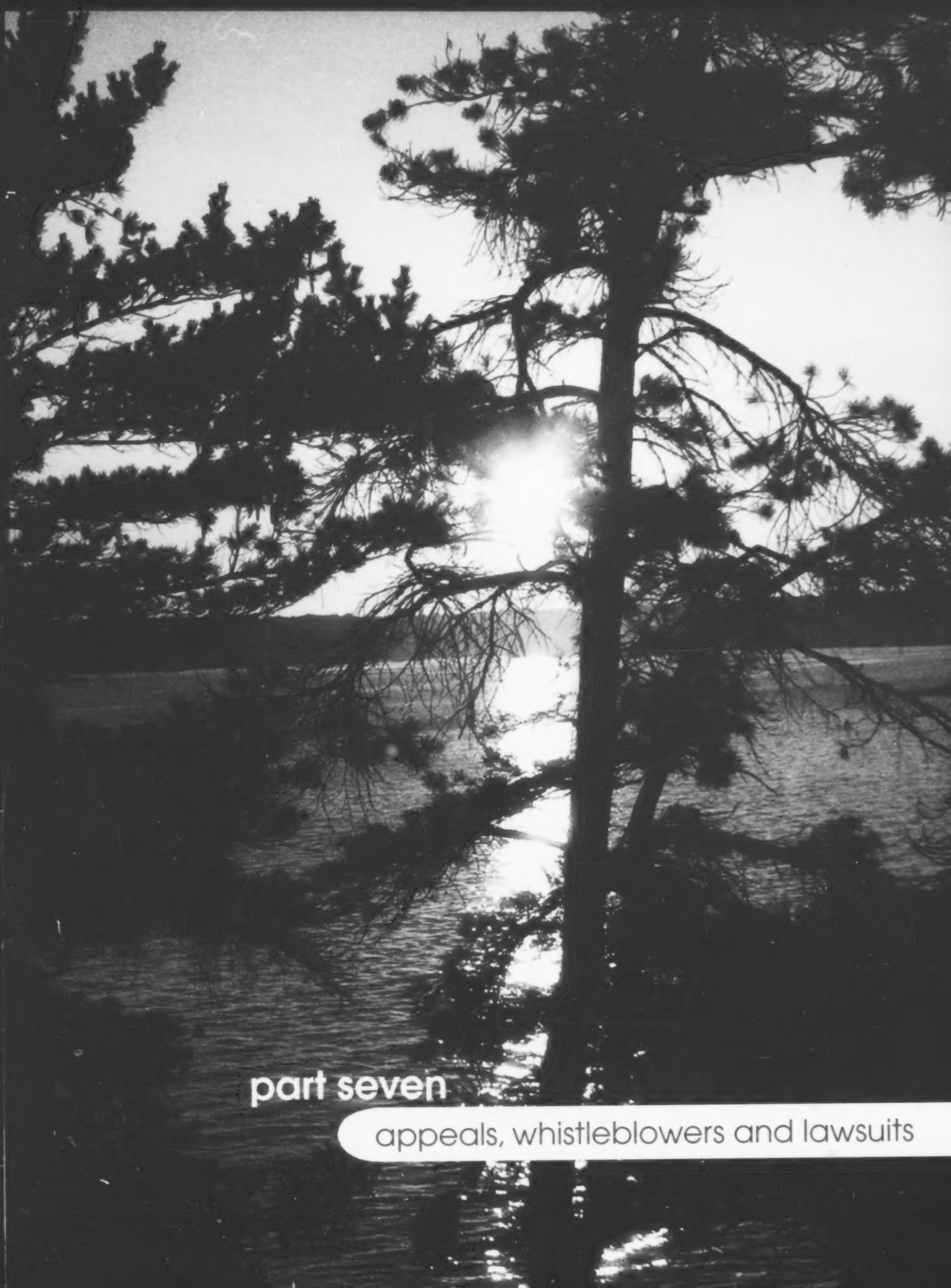
6.4 – Cooperation from Ontario Ministries

The Environmental Commissioner of Ontario (ECO) and his staff rely upon cooperation from Ontario ministries to carry out the mandate of the ECO. We are in frequent contact with staff of the prescribed ministries and agencies with requests for updates and other information. Clear, prompt responses from ministries allow the ECO to conduct reviews of the ministries' environmentally significant decisions in an efficient and straightforward manner. Section 58 of the *Environmental Bill of Rights* requires the ECO to include in our Annual Report to the Ontario Legislature a statement on whether or not prescribed ministries have cooperated on requests by the ECO for information.

The thirteen *EBR*-prescribed ministries and one agency (the Technical Standards and Safety Authority) each have one staff person who is designated as an *EBR* coordinator or contact. Most of the day-to-day interaction between the ECO and the ministries occurs via these coordinators, who play a pivotal role in facilitating effective *EBR* implementation. Among other duties, these individuals are responsible for coordinating the ECO's access to documents needed for reviewing ministry decisions posted on the Registry. For the *EBR* coordinators at MOE and MNR, this can be a significant workload, and the ECO is pleased to report that routine requests were generally met expeditiously during the 2007-2008 reporting period.

On one occasion, ECO staff noted that the link to a document associated with a policy proposal notice by MNR was missing from the Registry posting. This deficiency was brought to the attention of the MOE *Environmental Bill of Rights* (*EBRO*) office. The *EBRO* staff, which operates the Registry, contacted MNR and the missing information was provided on a corrected Registry proposal notice within one day.

Ministry cooperation and information exchange was at a consistently high level during the reporting period. MNR and MOE staffs were proactive in advising ECO of upcoming Environmental Registry postings of particular interest. Several meetings took place during which ministries shared information on programs with ECO. For example, the Ministry of Transportation gave a comprehensive presentation on recent progress on that Ministry's Environmental Standards Project. MNR staff also briefed the Commissioner and his staff on several occasions on various of that ministry's programs and initiatives.



part seven

appeals, whistleblowers and lawsuits

Part 7 – Appeals, Whistleblowers and Lawsuits

Ontarians have the right to comment on environmentally significant government proposals, ask for a review of a current law, or request an investigation if they think someone is contravening an environmental law. The *Environmental Bill of Rights* also provides Ontarians with several other legal tools including:

- the right to request appeals of certain ministry decisions;
- the right to sue for damages for direct economic or personal loss because of a public nuisance that has harmed the environment;
- the right to sue if someone is breaking (or is about to break) an environmental law that has caused (or will cause) harm to a public resource; and
- the right to employee protection against reprisals for reporting environmental violations in the workplace and for exercising the rights available to them under the *EBR*.

Appeals

The *EBR* gives Ontarians the right to apply for leave to appeal ministry decisions to issue certain instruments, such as the permits, licences or certificates of approval granted to companies or individuals. The person seeking leave to appeal must apply to the proper appeal body, such as the Environmental Review Tribunal (ERT), within 15 days of the posting of a decision notice on the Environmental Registry. They must show that they have an interest in the decision, that no reasonable person could have made the decision, and that it could result in significant harm to the environment.

Status of Leave Application on MOE Instruments

During the 2007/2008 reporting period, concerned residents and environmental groups filed five leave to appeal (LTA) applications involving approvals issued by the Ministry of the Environment. (Further details on these applications are provided in the record of 2007/2008 LTA applications found in Section 7 of the Supplement to this Annual Report.) The MOE instruments that were appealed included permits to take water (PTTWs) and certificates of approval (Cs of A). In two cases, leave was refused. In another case, the applicant withdrew her application. Two other cases were pending as of March 31, 2008, and will be reviewed in the next ECO Annual Report.

Status of Leave Applications on MMAH Instruments

In the 2007/2008 reporting period, the first LTA application was filed on an instrument issued by the Ministry of Municipal Affairs and Housing (MMAH). An Ottawa resident who has been working for decades to protect local wetlands and natural areas sought to appeal the decision of the Minister to approve Official Plan

Amendment (OPA) No. 2 adopted by the United Counties of Stormont, Dundas & Glengarry ("the United Counties"). The applicant set out six primary grounds for his appeal, including the fact that the OPA violated the 2005 Provincial Policy Statement (2005 PPS) because it failed to adequately to protect certain lands, did not designate the Bainsville Bay Marsh as a Provincially Significant Wetland (PSW) and failed to establish site-specific policies aimed at minimizing negative impacts to the environmental features prior to permitting development.

In late May 2007, counsel for the Ontario Municipal Board (OMB) wrote to the applicant stating that his application had been improperly filed and could not be adjudicated by the OMB. Fortunately the applicant's efforts did eventually produce a good outcome – the applicant filed a regular appeal with the OMB and a hearing was held in February 2008. The United Counties agreed to undertake planning measures to protect the PSW in the development area and the dispute was settled without a lengthy OMB hearing.

Status of Regular Appeals on MOE Instruments

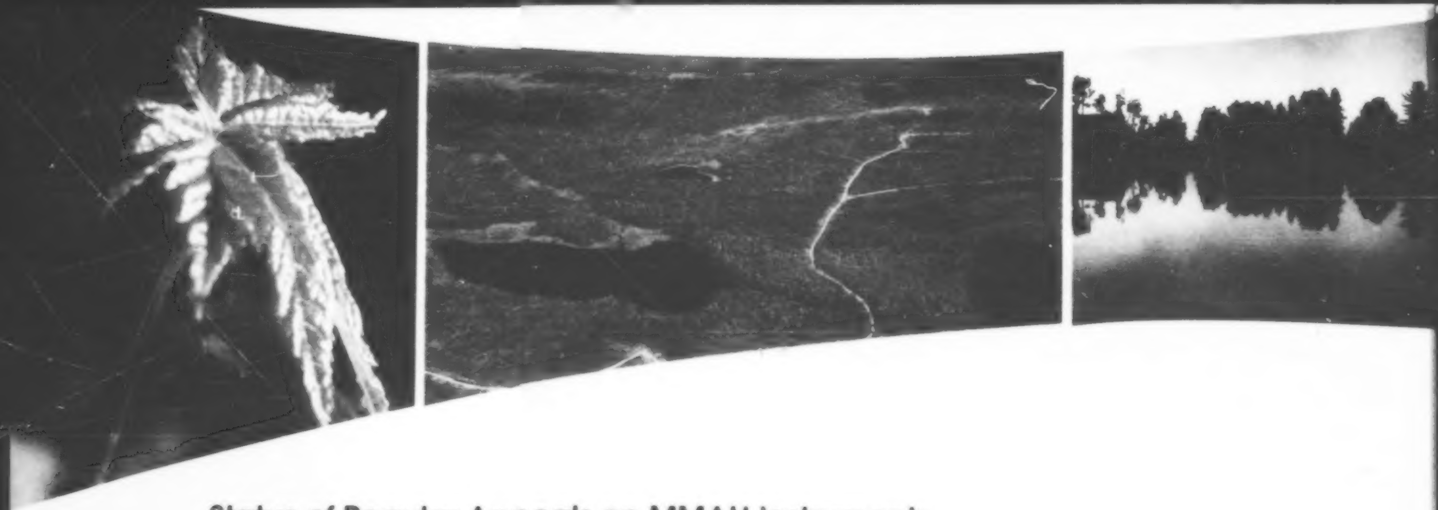
For the first time in our history, the ECO did not receive any "instrument holder" notices of appeal for MOE instruments during the reporting period. The *EBR* requires the ECO to post notices of these appeals, which are launched by companies or individuals who were the subject of a remedial order or were unsatisfied with its terms and conditions. The notices alert members of the public who may then decide to become involved with such an appeal as provided by s. 47 of the *EBR*. Between 1995 and 2000, the ECO posted approximately 12-20 regular appeal notices each year. The lack of Registry notices for instrument holder appeals in 2007/2008 graphically demonstrates the growing reliance by MOE on provincial officer's orders (POOs) which are subject to appeals by the company or person involved, but are not posted on the Registry for notice and comment and not subject to s. 47 of the *EBR*.

Table 1

Leave to Appeal Application Results for MOE and MMAH Instruments (as of March 31, 2008)

Leave granted	0
Leave denied	2
LTA decision pending	2*
Settled prior to adjudication	0
Withdrawn prior to adjudication	1
Not properly filed with Tribunal	1
Total	6

*One case, Miller v. MOE, was decided in late May 2008.



Status of Regular Appeals on MMAH Instruments

During the reporting period, the ECO posted one notice of appeal for an MMAH instrument on the Registry. Residents, companies, or municipalities can launch these appeals in relation to decisions made by MMAH under the *Planning Act* to approve a municipality's official plan, an official plan amendment, and other approvals in areas of Ontario where no official plan is in place.

Amhertsburg resident fights for local wetland

In July 2007, Dr. John Spellman applied for leave to appeal a decision by MOE to issue a PTTW to Creekside Hunting and Fishing Club ("the hunting club") for recreational purposes. The PTTW affects the Big Creek Wetland, a Lake Erie coastal wetland located east of the confluence of the Detroit River and Lake Erie, near Amherstburg. The wetland is designated a Provincially Significant Wetland (PSW) by MNR and a Globally Significant Important Bird Area by BirdLife International

MOE received 155 comments on the proposal. According to MOE's detailed July 2007 Registry decision notice, twenty-one commenters supported issuance of the permit, 95 opposed the PTTW, and the remaining 39 "either expressed a neutral-positive stance that the PTTW must safeguard public interest in water (e.g., by clarifying how water taking will be controlled) or provided comments that MOE determined were not related to the proposal (e.g., general views on wetland, hunting or on the commenting process itself)." In its decision notice, MOE also explained that it had relied on the hunting club's assertion of private ownership of the waters and beds of water as partial justification for issuing the permit

The applicant cited nine grounds in support of his application, including the following three:

1. By granting the permit, the Director failed to protect the quality of the natural environment and foster the efficient use and conservation of resources. In addition, the MOE failed to recognize that the Big Creek wetland is a navigable water and the public is entitled to use the area for boating.
2. The Director failed to obtain wetland and ecosystem data prior to issuing the permit and did not examine the cumulative effects of the water taking or the health of the wetland or watershed.

3. The decision to issue the PTTW was contrary to the MOE's Statement of Environmental valves (SEV). It did not have regard to the ecosystem approach, the precautionary principle or use science that meets the high standards of the scientific community.

In its decision released in November 2007, the ERT denied the application for leave. The ERT considered the various submissions as to whether the applicant met the two-pronged test for leave outlined by s. 41 of the *EBR*. Under the first prong, the Tribunal held that the applicant failed to demonstrate that there was reason to believe that no reasonable person could have decided to issue the PTTW while having regard for the relevant law and government policies.

With respect to the second prong, the Tribunal found that the applicant failed to establish that the Director's decision to issue the PTTW could result in significant harm to the environment. The ERT held that the Director acted on sufficient information, and the PTTW contained adequate conditions to identify and minimize the risks associated with the water taking. The Tribunal agreed with MOE "that the Big Creek Wetland does not contain a navigable waterway, as the wetland basin is very shallow and there is no defined creek channel." ERT also made note of MOE's assertions that "there is no public right to fish" and that the hunting club "owns the creek bed located on its property, and as such the public does not have a right to fish in these areas on property owned by the hunting club." The ERT went on to rule in favour of MOE on each ground.

In an unusual move, the hunting club sought costs against the applicant. The ERT dismissed the club's claim for costs against the applicant, stating that the applicant's actions were not "unreasonable, frivolous, vexatious, made in bad faith, and/or knowingly false and misleading." The Tribunal emphasized that failing to meet the test under s. 41 of the *EBR* was "not synonymous with acting unreasonably," and went on to note that the applicant provided "relevant scientific materials in support of his position."

The day after the ERT released its decision, counsel for MOE wrote to the ERT and indicated that he had recently learned from MNR that the creek was indeed a navigable water according to Ontario law and policy. This contradicted the position taken by MOE in its ERT submissions. However, counsel for MOE insisted that "even if this new information had been available" to the ERT prior to its decision it would not have affected the outcome.

In early December 2007, the applicant wrote to counsel for MOE and the Tribunal and noted a number of irregularities in the evidence that was presented and expressed serious concerns about some of the ERT's findings. The applicant convincingly argued that "there has never been a single piece of compelling evidence" from the hunting club in support of its claim that it owns the beds and waters. The applicant further stated that the hunting club has not shown "by any legally persuasive documentation that the Big Creek is not navigable." The applicant also stated that MOE made its decision on the terms and conditions of the permit "without the accurate knowledge to reflect Crown ownership and the public rights which flow from that."

The applicant went on to describe other flaws with the ERT decision. However, the applicant decided, after weighing the various factors involved, not to apply to ERT for reconsideration of its November 2007 decision.

Update on the Lafarge case

In our 2006-2007 Annual Report we described the appeal of MOE's decision to issue two Cs of A to Lafarge Canada Inc., permitting the company to test burn alternative fuels at its cement plant in Bath, west of Kingston. The C of A for the waste site, issued under s. 39 of the *Environmental Protection Act* (*EPA*), allows Lafarge to import and burn up to 100 tonnes per day of solid non-hazardous waste materials (such as tires, animal meal, plastics, shredded tires, solid shredded materials, and pelletized municipal waste). The C of A (air) issued under s. 9 of the *EPA* sets out monitoring requirements to detect toxins that might be released into the environment. For example, Lafarge is required to continuously monitor emissions and to publicly report those results.

In early January 2007, a number of local residents and representatives of a number of environmental groups (including Clean Air Bath, the Loyalist Environmental Coalition, and Lake Ontario Waterkeeper) applied for leave to appeal (LTA) MOE's decisions. The grounds for seeking LTA on the C of A (air) included arguments that:

- it was unreasonable for the Director to issue the approval, given that MOE has not obtained information on local air quality, such as baseline air quality data; and
- the Director failed to properly take into account the ecosystem approach, promote resource conservation, and apply the precautionary principle, as required by MOE's SEV.

(For further detail on the grounds, see Section 7 of the Supplement to this Annual Report.)

In early April 2007, the ERT granted leave to most of the applicants with respect to the two Cs of A. The ERT found that the successful applicants met the first requirement of the LTA test for the C of A (air) on several grounds including the following reasons:

- The Director did not assess the potential cumulative ecological consequences of approving the C of A application. The ERT noted that the mere fact that the C of A complies with O. Reg. 419/05 is not sufficient to establish that the decision to issue the C of A is reasonable, or to establish that MOE has taken an ecosystem approach in making its decision, as required by MOE's SEV.

- The Director did not follow the direction in MOE's SEV to apply a precautionary approach.
- The Director's decision exposes the residents of Bath to the effects of an activity (i.e., the incineration of tires) that MOE is proposing to ban in the rest of the province, without considering whether such a decision could produce inconsistent environmental effects between communities.

The ERT also found that, despite the fact that MOE has concluded that the facility is able to operate in accordance with O. Reg. 419/05, MOE regulations do not incorporate consideration of cumulative effects, total ecosystem loading, synergistic effects, bioaccumulation or complete standards for high priority contaminants.

In late September 2007, Lafarge announced it would be applying for a judicial review of the ERT's April 2007 decision to Ontario's Divisional Court, seeking to quash the LTA decision. Lafarge's lawyers filed a notice stating they would argue that the Tribunal made an error when it decided that MOE's SEV is part of the "relevant law and ...government policies" developed to guide MOE decision-making. Lafarge also stated that it intended to challenge the Tribunal's finding that the Director's decisions failed to apply an "ecosystem approach" and a "precautionary approach," contrary to MOE's SEV.

In November 2007, Commissioner Miller announced that his office would be applying to intervene in the Divisional Court hearing as a friend of the court to explain why he believed that the ERT made correct findings on the application of the SEVs to MOE's instrument decisions. Although the ECO's initial application for leave to intervene filed in February 2008 was rejected, the ECO appealed to a full panel of Divisional Court. The ECO was granted intervention status only four days before the Divisional Court hearing commenced in April 2008.

In mid-June 2008, the Divisional Court ruled that the ERT had acted reasonably in granting leave to appeal. The court agreed with the lawyers for the environmental groups and the ECO that MOE's SEV should be considered applicable policy by the Tribunal. The court also agreed that it was reasonable for the ERT to conclude that MOE should have considered the ecosystem approach and the precautionary principle as set out in MOE's SEV. In addition, the court ruled that the standard of proof for leave to appeal applications under s. 41 of the *EBR* is less than a balance of probabilities (the usual standard in civil law trials), and close to the *prima facie* standard set out in the *Barker v. MOE* LTA decision issued by the Environmental Appeal Board in 1996.

In early July 2008, Lafarge applied to the Ontario Court of Appeal (OCA) for leave appeal the Divisional Court decision. The company also announced in mid-July that it would cancel the project if it loses its legal battle at the OCA. An ERT hearing had been scheduled to begin at the end of September 2008 and was supposed to last about two months. The ECO hopes to report on this case in our 2008/2009 Annual Report.

Public Nuisance Cases

Prior to 1994 when the *EBR* came into force, claims for public nuisances in Ontario had to be brought by the Attorney General or with leave of the Attorney General. Today, under s. 103 of the *EBR*, someone who has suffered direct economic loss or personal injury as a result of a public nuisance can bring forward a claim and no longer needs the approval of the Attorney General. No new cases including public nuisance as a cause of action came to the ECO's attention during the reporting period, although one 2001 environmental class action related to the Port Colborne Inco facility, *Pearson v. Inco Limited et al.*, continues to move through the courts. The trial is scheduled to begin in the fall of 2008, in Welland. The ECO will provide updates in future annual reports.

The Right to Sue for Harm to a Public Resource

The EBR gives Ontarians the right to sue if someone is violating, or is about to violate, an environmentally significant statute, regulation or instrument, and has harmed, or will harm, a public resource. To date, the only court action brought under the Harm to a Public Resource provisions of the *EBR* for which notice has been provided to the ECO is the proceeding started in 1998 by the Braeker family against the Ministry of the Environment and Max Karge, an owner of an illegal tire dump. The ECO will continue to monitor this case, and will report on its ultimate conclusion.

Whistleblower Rights

The *EBR* protects employees from reprisals by employers if they report unsafe environmental practices of their employers or otherwise use their rights under the *EBR*. There were no whistleblower cases in this reporting period.

part eight

developing issues

Part 8 – Developing Issues

As part of our Annual Report, the ECO often identifies issues that may be escaping broader public attention, but have the potential for significant environmental impacts, and thus deserve greater prominence and stronger government response. This year, the ECO has chosen to focus on two such topics of interest. Our first article addresses the issue of roads as barriers to functioning ecosystems, and considers ways of reducing their impact on affected ecosystems. The second article discusses the need to better understand the important ecological role played by Ontario's mammalian predators. Such an understanding is essential to effective wildlife management and the conservation of biodiversity in Ontario.

8.1 – Roads – Pathways for Humans, Barriers for Functioning Ecosystems

For decades, we have designed roads to improve their safety and efficiency; more recently, we have tried to mitigate the negative environmental impacts of road construction, such as erosion and sediment run-off at the site level. We are now beginning to understand that roads can have ongoing negative impacts on wildlife and the health of our ecosystems, and that the ecological footprint of a road is not restricted to the road corridor itself. This is especially important in Ontario where population growth is forcing the continual expansion of urban boundaries into natural areas and is putting development pressures on intact ecosystems.

The emerging science of road ecology explores and addresses the relationship between the natural environment and the road system. Roads have both direct and indirect impacts on wildlife and ecosystems, and the interactions can be both nuanced and profound. Habitat fragmentation, the creation of barriers to wildlife movement (and, therefore, the flow of genes between populations), high mortality rates through roadkill, the pollution and silting of streams, and the introduction of invasive species are just a few of the possible ecological impacts.

Effects of Roads on Wildlife

Road Mortality

Being killed while crossing a road has an obvious negative effect on an individual member of a wildlife population, not to mention the dangers such a collision can pose to the people in the vehicle that strikes the animal and other vehicles in the vicinity. Ontario averages more than 10,000 wildlife-vehicle collisions a year or one every 38 minutes, mostly along undivided two-way roads. Road-related mortality can be particularly devastating to populations of species that have low reproductive rates (such as mammalian predators and turtles) and those that are wide-ranging or undertake seasonal migrations (for example, mammalian predators, snakes and amphibians). Ontario's multi-turtle species at risk recovery team has identified road mortality as one of the main threats to turtle species at risk. In fact, studies in the United States have found that the ratio of male to female aquatic turtles has increased as road density has increased. This is due to the fact that female turtles are more susceptible to road mortality during their migration to nest locations. Populations cannot compensate for this loss of egg-bearing females. An Ontario study on roadkill of frogs and toads found that road mortality has a significant effect on local population densities. For some species, vehicle speed correlates with road mortality; for other species, it is the volume of traffic on the road that has more of an impact.

While many species avoid roads, reptiles and some insects are attracted to roads as a warm, open place to bask and because sandy road shoulders make attractive nesting sites, which increases the risk of being hit by vehicles. Similarly, red-winged blackbirds can be more abundant closer to roads because of the abundance of cattails in roadside ditches. Bridges provide roosting for bats, and some raptors and ravens benefit from additional perching sites in the form of hydro poles along the road corridor. All of these situations bring wildlife closer to roads where the risk of being struck by a vehicle is increased.

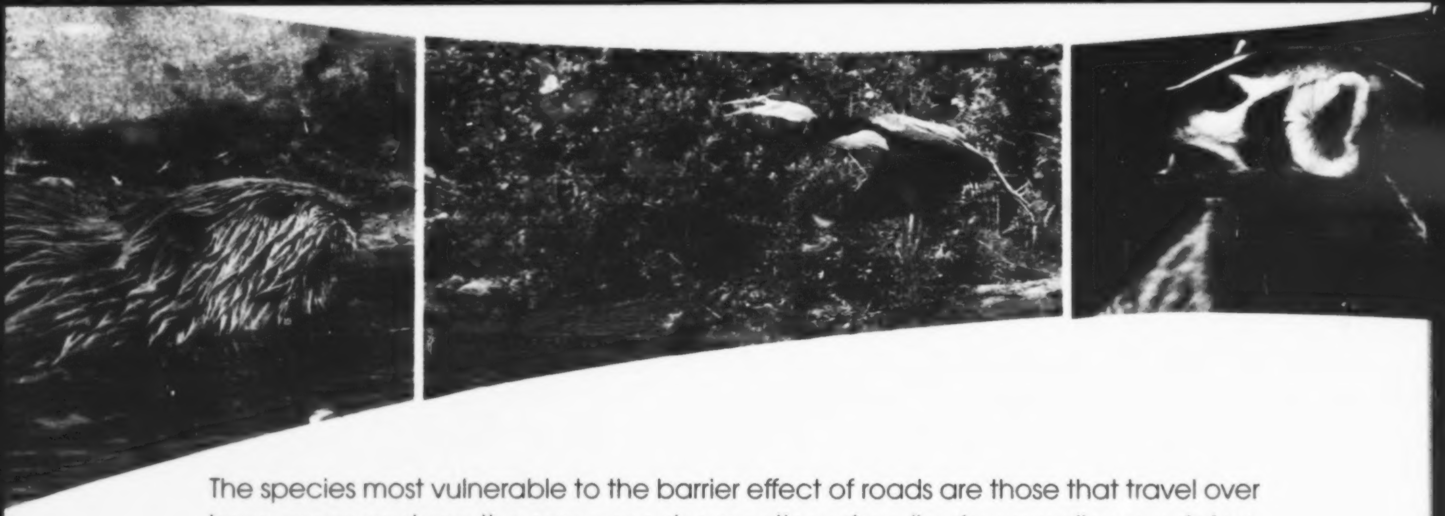
Wide-ranging carnivores, such as wolves and coyotes, are particularly susceptible to road mortality. When there are fewer top predators, it can result in the overgrazing and overpopulation of habitats by their former prey. There is a cascading effect through the ecosystem as these top predator populations are impacted by roads. The ECO provides more detail on mammalian predator management policies in Part 8.2 of this Annual Report.

Salt Toxicity

Mineral-deficient deer and moose come to roads for salt. Recent studies have found that the ingestion of road salt by wildlife can have a temporary, debilitating intoxication effect. Studies at Algonquin Provincial Park and at Mount Revelstoke National Park in British Columbia suggest that salt toxicity caused by the ingestion of sodium chloride impairs wildlife brain function. Impairment makes wildlife less able to avoid being struck by vehicles, and salt ingestion has been implicated in songbird losses. The ECO discussed the effects of road salt on aquatic and terrestrial ecosystems extensively in the 2006-2007 Annual Report.

Road Avoidance and Habitat Fragmentation

While some species are attracted to roads, others avoid roads. Roads fragment suitable habitat for wildlife and isolate populations from one another causing a loss of gene flow between populations. This can result in small, isolated populations that are not self-sustaining because there are no new breeding adults entering the population. These populations may eventually disappear altogether. This ultimately results in a loss of biodiversity.



The species most vulnerable to the barrier effect of roads are those that travel over large areas and are the same species mentioned earlier (mammalian predators, reptiles and amphibians) that are particularly susceptible to road mortality. Species that share this trait are the large predators that act as keystone species: species that are long-lived, slow to reproduce, wide-ranging, require specialized habitat, and have been actively eradicated from much of their former range. Keystone species act as the backbone of an ecosystem; detrimental impacts to them ultimately impact the other species within that ecosystem, as well as how that ecosystem effectively functions. One study found that all wolf pack territories in the western Great Lakes area of the United States occurred on one side or the other of a major highway. The packs actually adjusted their territories so that they would not have to cross the highway. Similarly, bears shift their home ranges to areas of lower road densities. As reported in the ECO's 2006-2007 Annual Report, much of the range recession of woodland caribou in Ontario is coincident with landscape-level fragmentation of habitat – and the subsequent isolation of caribou populations – caused by logging, land clearing, and road building. Studies in Boston have found that birds, such as bobolinks and eastern meadowlarks, don't reproduce near roads.

A time lag occurs, sometimes stretching to decades, before the environmental effects of roads on wildlife populations can be fully observed. The loss of habitat is the most immediate effect. The effects of road-related wildlife mortality take longer. Where roadkill numbers are large, the effect should be observable after the road has been in place for approximately one or two generations of the animal species. The barrier effect that isolates populations and disrupts gene flow will take several further generations to become manifest.

Effects of Roads on the Landscape

The environmental effects of road systems are not always immediate, nor are they isolated to just the area occupied by the road itself. The impacts can be cumulative and far-reaching. Immediate effects, such as the direct loss of habitat, can sometimes be mitigated by habitat restoration. The unforeseen impacts, which may also have a time lag, are insidious and difficult to anticipate. The continuing fragmentation and isolation of patches of habitats will eventually reach the point where populations of associated species can no longer be sustained.

Effects on Streams

Chemicals and pollutants from vehicles, roads and bridges, and their effects on streams, have been well documented. Spills of oil, gasoline, industrial chemicals, objects discarded from vehicles, sand, salt, herbicides and the materials that come from degrading vehicle tires and road surfaces are all carried to and eventually deposited in streams. The hydrology of streams and wetlands change when they are channelized or redirected by culverts or ditches, and when small headwater tributaries are eliminated altogether. As roads are built, the amount of impervious (hard surface) area in a watershed increases. This leads to rapid, high volume run-off, carrying the sand, salt and other contaminants found on the roads into streams. All of this sedimentation, together with other hydrological changes, result in streams that are more likely to flood in wet weather, to dry up under drought conditions, and to be otherwise degraded.

Invasive Species

Roads provide pathways along which invasive, non-native plant species can move from one area to another, crossing barriers that would normally stop or slow their spread. Non-native species are widely distributed along roadsides. Species commonly found along roadsides in southern Ontario include the invasive ecotype of the common reed (*Phragmites australis*), dog-strangling vine (*Vincetoxicum spp.*) and ragweed (*Ambrosia spp.*).

What Can Be Done?

Most ecologists would agree that prevention is preferable to mitigation. However, when the decision is made to build a road, there are several forms of mitigation that can be implemented. Wildlife fencing, underpasses/overpasses, warning signs, lower speed limits, highway lighting, and public awareness programs have all been used with varying levels of success. For instance, fences have been found to work well in certain situations, but not all. Based on studies of roads in North America, it has been recommended to use fences when traffic volume is so high that animals are almost never successful in their attempts to cross the road. The same study discourages the use of fences when animals need access to resources on both sides of the road, unless fences are used in combination with wildlife crossing structures. Ultimately, more research is required on what type of mitigation is appropriate in different situations and what is best for the wildlife and ecological integrity of the area.

One of the guides developed as part of the Ministry of Transportation's (MTO) Environmental Standards Project is the Environmental Guide for Wildlife in the Oak Ridges Moraine (discussed in greater detail in Part 3.11 of this Annual Report and Part 4.23 of the Supplement) which explores mitigation in detail. This guide is intended to help address the environmental protection requirements for the Oak Ridges Moraine, specifically those related to facilitating wildlife movement. While this document is not intended to apply across the whole of Ontario, it does summarize much of the best available information on mitigating the impacts of roads on wildlife.

MTO's former Research and Development Branch completed a study on the effects of highway barriers on wildlife in 1995. Unfortunately, the branch was eliminated shortly after completing the study as a result of funding cut-backs, and MTO no longer undertakes original research. The MTO staff tries to keep up with the latest research being done elsewhere and applies it to their projects, but they are not in the business of monitoring wildlife. The one exception is Highway 69, where both the Ministry of Natural Resources (MNR) and MTO have partnered to undertake the monitoring of wildlife passages and barriers. This is a pilot project and there are currently no plans for long-term wildlife monitoring on other highway projects.

Monitoring of where wildlife crosses roads (or where they could cross proposed roads) is essential in order to be able to mitigate the impacts. Unfortunately, this is not occurring in Ontario in a centralized or cohesive manner. The Ontario Provincial Police (OPP) maintain statistics on the types of collisions that occur and note whether they involve a wild animal. This information is passed on to MTO's Road User Safety Division and is published in the Ontario Road Safety Annual Report. In the past, it was not specific to the type of wildlife but, as of 2001, the data does specify if a collision involved a deer. However, any collisions with small animals are not monitored, and many of the migration corridors of reptiles and amphibians are unknown.

The Toronto Zoo has formed a road ecology group, made up of government and non-government scientists, educators and transportation planners. This group is working on a habitat connectivity analysis to help determine where the wildlife "hotspots" are for amphibians and reptiles based on mapping of wetlands and forests. They are also asking the public to send in their observations of either roadkill or live animals crossing the road. This will be overlaid with the various natural heritage systems that have been mapped in southern Ontario (e.g., Oak Ridges Moraine, Greenbelt, Toronto and Region Conservation Authority, etc.) and, ultimately, with mapping of future road upgrades and expansions from MTO and municipalities. The planning process for new roads, upgrades and expansions can occur decades before construction actually begins, so it is essential that this connectivity data be incorporated into the process as early as possible. While it is very laudable that the Toronto Zoo has taken the initiative to form this road ecology group, ultimately a public agency (namely MNR) will need to step up and take responsibility for making sure that the mapping is expanded to other sensitive regions across the province, continually updated and taken into consideration during the road planning process.

There is a strong and growing body of evidence that roads can have long-term negative impacts on wildlife and ecosystems. Ontario has not progressed nearly as far as some other jurisdictions in Canada, such as British Columbia, in setting policies and standards to avoid or at least mitigate these impacts (see the sidebar for details of a particular wildlife mitigation response on Vancouver Island, BC). Of particular concern to the ECO is the impact that roads will have on the ecosystems of the North as pressure increases to open up parts of the boreal forest to logging and mining, as well as the continuing pressure for more roads on the already fragmented and heavily impacted and stressed natural landscape of southern Ontario. There is a need to look at the environmental impacts of roads on the broader landscape rather than just focusing on a narrow strip surrounding the pavement. Providing this is done, the impacts of roads can be mitigated to allow natural processes to continue to operate, while still providing a safe and effective way for humans, goods and services to be moved from place to place.

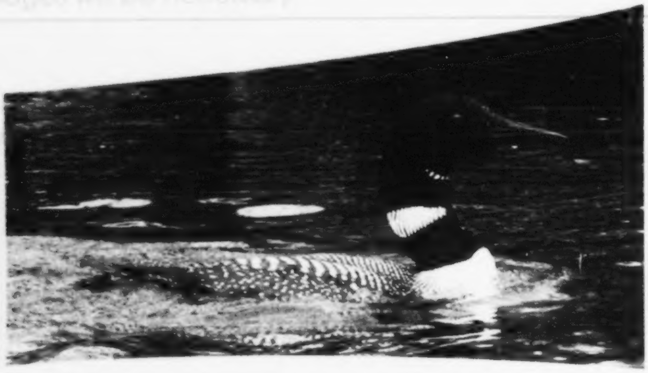
Unexpected Western Toadlet Migration on the Vancouver Island Inland Highway

In August 2007, the Vancouver Island Inland Highway was inundated with a "tsunami" of western toadlets near Pup Creek, north of Courtenay. During the environmental impact assessment process, before the highway was built, numerous toad crossing locations were identified and mitigated with fencing and tunnels. Unfortunately, the particular location where these toadlets were crossing, extending approximately two kilometres along the highway, had not been previously identified. Under the supervision of an amphibian expert who was working with the Ministry of Transportation, contractors, staff and volunteers quickly installed amphibian fencing to direct the toadlets into buckets which could be carried to the other side of the road. The migration continued for eight weeks and at its peak, it was estimated that 50,000 toadlets were trying to cross each day. The ministry replaced the existing median barriers with barriers that have openings at the bottom so that any toadlets that were making it past the fencing and onto the road still had a chance of getting across. One of the northbound lanes was also closed to traffic for the safety of the toadlets, as well as the safety of the people toting buckets across the road and the media that had arrived to document the scene. In the end, an estimated one million toadlets were carried across the road in buckets. Ministry environmental staff members are now trying to determine what mitigation measures should be put in place in case the migration in that location is a regular occurrence. They are also developing a wildlife migration response protocol in anticipation of future small wildlife migrations across provincial roads.

For ministry comments, see page 220.

Recommendation 10

The ECO recommends that MNR and MTO collaborate to monitor wildlife crossings on existing roads to determine where mitigation is required and to work together early in the road planning process to identify areas where wildlife passages will be necessary.



8.2 – Wildlife Management: Ontario's Mammalian Predators

Historically, the management of large carnivores across North America has focused narrowly on exploiting their economic value and/or limiting their predation on domestic animal stocks. Ever since governments began actively managing wildlife populations in the 18th century, only minimal consideration has been given to the ecological role and inter-species interactions of wildlife. Furthermore, the manner in which many species of large carnivores – wolves, cougars, coyotes, bears, etc. – are still managed today reflects how society has traditionally perceived and interacted with the natural environment.

Many species of wildlife have typically been viewed as resources to be harvested for commercial value or as game to be hunted for sport. To this end, government policies and practices routinely have treated large carnivores as vermin to be eradicated or as obstacles to other management goals, such as increasing deer and moose numbers. This approach to wildlife management has too often resulted in the regional extermination of top carnivores across North America, including in Ontario.

In recent decades, however, there has been a substantial shift in attitude and understanding within the scientific community and the public at large. Large carnivores are now considered vital components of the ecosystem and instruments for managing and conserving the natural world. Yet, it is often unclear whether government policies have fully adopted this more enlightened ecological approach to wildlife management

Mammalian predators as ecosystem regulators and buffers

Mammalian predators exert a strong influence on their prey populations. In addition, few species fill the ecological role of top predator. As a result, the removal of top predators from a food chain can result in the overgrazing and overpopulation of habitats by their former prey, fluctuations in prey populations, and trophic cascades with far-reaching ecological consequences. For example, the virtual absence of wolves, cougars and bears in southern Ontario led MNR to establish an annual deer cull to control deer numbers in several provincial parks.

Conversely, the presence of top predators can buffer ecosystem stresses, including those that result from climate change. International experts affirm that protecting habitats, populations of species, and genetic diversity is necessary for both natural resilience and adaptation in the face of climate change. Therefore, an informed approach to the management of mammalian predators is imperative.

Mammalian predators as indicators of biodiversity

Large mammalian predators, such as wolves and bears, typically exhibit low population densities and large home ranges. Along with their position at the top of the food chain, these characteristics can make large carnivores potentially useful indicators of ecosystem health; where top predators structure ecosystems, designing conservation plans that strongly consider their needs – adequate space and habitat – can result in the conservation of a whole range of species and the ecosystems they inhabit.

Even when top predators exert a less dominant influence on lower trophic levels, they can still act as valuable indicator species for wildlife managers, a result of their low population densities and large home ranges. Unfortunately, because of these same biological characteristics, once large carnivores become extinct locally it can be difficult to re-establish and rebuild predator populations to previous levels.

The importance of qualitative biological characteristics

Even when mammalian predators have little discernible effect on the population densities of lower trophic levels, they can still shape the behaviour, distribution, habitat use, ecology and evolution of their prey. These indirect effects can trickle down to habitat users other than the predator's prey, such that mammalian predators may exert subtle but critical effects on biodiversity in general. For example, the reintroduction of wolves into Yellowstone National Park in the United States has resulted in widespread ecological changes that affect prey species, other mammalian predators, and even vegetation patterns.

The sometimes subtle differences between the ecological roles of different mammalian predator species mean that the replacement of one by another may not necessarily result in similar impacts. For example, although the human-caused extirpation of wolf populations in southern Ontario over the last two centuries has resulted in an influx of coyotes, coyotes have not replaced wolves as a major predator of deer. Likewise, hunting by humans cannot replace natural predation in an ecologically functional way. While humans typically hunt large, healthy 'trophy' animals, natural predation tends to cull the very young, old and sick from a prey population.

The potential ecological significance of large carnivores warrants questioning the historical practice of harvesting these species at 'sustainable yield' levels. True sustained-yield management should consider both the quantitative (e.g. population levels, age and sex distribution, etc.) and qualitative (e.g., sociality, territoriality, hunting behaviour, etc.) features of populations of large carnivores. This is necessary to determine whether any level of hunting or trapping is ecologically appropriate and, if so, to determine the harvest levels that would still maintain the underlying functional integrity of ecological systems.

Historical wildlife management practices in North America typically have not dealt with the qualitative features of species. Instead, management has been geared toward what has been referred to as the "farming" of wildlife – maintaining a sufficient supply to hunt or trap for recreational or commercial purposes. Indeed, this approach manages mammalian predators as if they were ungulates, which have evolved to withstand predation. In contrast, the only predator of many large carnivores is humans.

Given the potential ecological importance and vulnerability of mammalian predators, it is particularly important that their role, behaviour and ecology be well understood. It is also important that reliable information on population sizes, trends and distributions be collected. Available evidence indicates that a precautionary approach should be intrinsic in the management and conservation of mammalian predators.

The ECO reviewed MNR's data and policies to examine whether any of the emerging knowledge of the ecology of mammalian predators has been incorporated into their management regime. Although some of the species considered in this section are not large animals (e.g., martens) or strictly carnivores (e.g., black bears), the MNR policies related to them were reviewed because many of the same management issues apply. We highlight four species here to illustrate some of these issues.

SPECIES	POPULATION ESTIMATE BY MNR	RELIABILITY OF ESTIMATE	DESIGNATION BY MNR	PRIMARY UTILIZATION(S)	RECENT PEAK ANNUAL HUNTING & TRAPPING LEVELS (APPROX.)
Eastern wolf	1,500 - 2,500	good	Regulated species at risk: special concern Harvested as a furbearing mammal	Commercially trapped & recreationally hunted	750
Gray wolf	5,200 – 6,200	good	Harvested as a furbearing mammal	Commercially trapped & recreationally hunted	
Coyote	unknown, but "abundant"	poor	Harvested as a furbearing mammal	Hunted & trapped as vermin	4,600
Cougar	unknown	poor	Regulated species at risk: endangered	n.a.	n.a.
Bobcat	unknown	poor	Harvested as a furbearing mammal	Commercially trapped	80
Lynx	unknown (80,000?)	poor	Harvested as a furbearing mammal	Commercially trapped	1,800
Black bear	75,000-100,000	fair	Harvested as a game mammal	Recreationally hunted	6,200
Polar bear	1000	good	Regulated species at risk: special concern	Limited aboriginal hunt	3
Fisher	unknown (40,000?)	poor	Harvested as a furbearing mammal	Commercially trapped	8,500
Marten	100,000-300,000	poor	Harvested as a furbearing mammal	Commercially trapped	63,000
Badger	100-200	good	Regulated species at risk: endangered	n.a.	n.a.
Wolverine	300	good	Regulated species at risk: endangered	Limited aboriginal hunt	5

Eastern wolves

There is ample evidence that wolves can play an important role in regulating prey populations and stabilizing ecosystems. Yet, MNR policy largely overlooks the ecological role of this top predator in Ontario's ecosystems. Although the ministry's wolf management strategy identifies that "managing a top predator" can be a challenge, it does so in the context of wolves competing with humans for wild prey. As outlined above, the conservation of biodiversity requires careful consideration of the ecological role of large carnivores and the subtle effects they might have on other species and entire biological systems.

To maintain Ontario's biological diversity, it is important to understand the genetic diversity that currently exists. This includes identifying what is out there, where it is located, how much there is of it, and how at risk it may be. This can be as basic as correctly identifying which species live in Ontario. For example, the taxonomic classification of the eastern wolf - particularly whether it is a distinct species - can have significant conservation implications.

Although recent genetic studies, an independent review, and previous ECO reports have all argued that the eastern wolf should be recognized as a distinct species, MNR continues to consider the eastern wolf as a subspecies - *Canis lupus lycaon* - of the gray wolf (*Canis lupus*). This approach assumes that any fluctuations in eastern wolf population levels would likely be buffered by their close genetic connection to the larger gray wolf population in Ontario. Unfortunately, this (mis)identification has enormous bearing on conservation measures. Experts state that if eastern wolves were correctly recognized as a distinct species (with a total population of approximately 1,500 to 2,500), they would be "one of the most endangered canid species in the world."

Eastern cougars

Prior to the arrival of Europeans, the range of the eastern cougar (*Puma concolor*, previously classified as *Felis concolor*) covered almost all of Ontario, from the southern Great Lakes to Hudson's Bay. This species was virtually exterminated from the province by the beginning of the 20th century. Eastern cougars have been regulated by MNR as an endangered species since 1971.

The number of sightings of eastern cougars has steadily increased in recent decades, with approximately 500 reported sightings since 2002. Genetic sampling of scat found in the wild, confirmation of cougar tracks, and other sightings and physical evidence leave little doubt that there are cougars in Ontario.

MNR, however, has typically dismissed cougar sightings, attributing them to cases of mistaken identity with other species. The ministry also suggests that some sightings likely were of escaped or released captive cougars. Therefore, as "non-native" species, the ministry assumed that these cougars did not need to be managed as

endangered animals. In essence, any escapees were not viewed as true wildlife and, therefore, no agency was responsible for investigating whether they were part of a native population.

Although there are several subspecies of cougars in South America, experts argue that there is only one type or subspecies of cougar in North America. This evidence substantially weakens MNR's case for differentiating between a "wild" cougar, an escapee, or a cougar that has naturally dispersed into Ontario from another jurisdiction.

MNR has done little, if anything, to manage Ontario's eastern cougars in the four decades that they have been regulated as an endangered species. The ministry has neither attempted to systematically verify that a native population exists (except very recently at a highly localized scale) nor taken the alternative position that the population has been extirpated and, accordingly, worked toward its reintroduction or recovery. This inaction is not commensurate with the "at risk" status of this species or its likely historical role as a top predator in Ontario ecosystems.

Coyotes

The coyote (*Canis latrans*) is a medium-sized carnivore that quickly adapts to human-caused alterations to the landscape, such as the clearing of land for agriculture and development. Indeed, it is believed that coyotes were virtually nonexistent in the province until the onset of widespread European colonization in the 19th century. Humans created suitable conditions for coyotes through the massive deforestation and land-clearing for agriculture in southern Ontario. The spread of coyotes into southern Ontario was further assisted by the concerted effort to eliminate other predator species, such as wolves, thus creating a new ecological niche.

Coyotes adapt to intensive non-selective hunting and trapping pressures by increasing the frequency of litters and number of pups per litter. Indeed, some studies suggest that coyotes can withstand the harvesting of up to three-quarters of their population annually and not be locally extirpated for decades. Although some government policies treat coyotes as *de facto* vermin, it is virtually impossible to eliminate coyotes regionally in order to minimize perceived human-wildlife conflicts.

Nonetheless, a suppressed or reduced coyote population can lead to a dramatic increase in other species, such as rodents or even feral housecats. These species in turn prey in greater numbers on other species, such as birds and small vertebrates. The result is a highly altered ecological system in a constant state of flux. Despite the importance of understanding predator-prey dynamics in coyote management, this aspect of their biology has gone largely unresearched. Therefore, the ecology of coyotes has been given little consideration in government policies, which treat coyotes either as fur-bearing mammals or pests.

MNR does not have an estimate of how many coyotes are in Ontario, stating only that they are "abundant." Although there is significant variability between years, up to 3,400 coyotes have been trapped and 1,200 hunted annually in recent years. However, local population changes are usually attributed to natural mortality caused by disease, such as mange. Like most wildlife agencies in North America, MNR does not even attempt to ensure that coyote harvesting is done on a sustained yield basis.

Black bears

The black bear (*Ursus americanus*) can be considered a keystone and indicator species in some circumstances, an important predator of newborn deer and moose, and a potentially important competitor for some prey species. MNR's current black bear management policy, however, does not consider the potential ecological role of this species and instead treats black bears as game, focusing on sustaining hunting opportunities. While the ministry has drafted a new framework that identifies black bears as "an integral part of a functioning ecosystem and an important component of Ontario's biodiversity," this approach has not yet been formally adopted.

Harvests of black bears in some areas of Ontario may be occurring at unsustainable levels. After reviewing MNR harvest data, the Auditor General of Ontario recently noted, "While some areas of the province have an abundance of black bears ... the ministry had incomplete information regarding black bear harvests, which could lead to decisions that do not support sustainability in all areas of the province." Furthermore, some wildlife management units exceeded the allowable harvest of adult female bears. Unfortunately, the consequences of an error in population management are serious, because black bears have a low reproductive rate. Once a bear population is overharvested, it may take a decade or more to recover.

Another important component of ensuring the sustainability of a population is habitat management. Rather than manage black bear habitat directly, MNR primarily manages it indirectly through the forest management planning process for commercial timber harvesting. Some evidence suggests that an indirect approach to managing bear habitat is not effective.

While MNR's management approach deals with this species in a uniform fashion, unique challenges can exist for subpopulations. For example, a lack of habitat corridors may have contributed to the genetic isolation of the Bruce Peninsula black bear population, a conservation issue not considered in MNR's current policy.

ECO comment

The loss of biological diversity is, unequivocally, a global crisis. In response, the Ontario government has committed to protecting the genetic, species and ecosystem diversity of Ontario. Mammalian predators are an integral component of Ontario's biodiversity that merits concerted attention by the Ministry of Natural Resources.

It is no longer reasonable to manage mammalian predators primarily as pests to be eradicated or game and fur-bearing mammals to be harvested. A broader and better informed approach guided by the precautionary principle, which seeks to ensure the integrity of Ontario's ecological systems, is warranted. Wild species should be maintained for their inherent value above all else. They should not be managed simply as a commodity to be rationed amongst stakeholder groups for consumptive (or even non-consumptive purposes), as seen in MNR's recent management of wolves.

MNR's approach to wildlife management typically focuses on the total numbers of a population. Generally, little attention is given to qualitative biological characteristics and interactions with other species. Put another way, as long as X number of animals is generally maintained, then Y number can be harvested annually, and thus, a management program is deemed to be sustainable. This approach inadequately considers the ecological role of species and the cascading effects that human influences can cause on biological systems. The potential to hunt or trap a species should be but one consideration within an integrated approach to their management.

Reliable population estimates are lacking for several of Ontario's mammalian predators. For some species, such as marten and lynx, population estimates are essentially educated guesses that are arguably optimistic. There is a marked difference between what the theoretical capacity of a landscape may be for a species versus how many animals are actually physically present.

For some species, such as fisher and marten, MNR uses harvest indicators to estimate the size and health of populations. Unfortunately, relying on harvest indicators can result in erroneous findings. First, the ability to estimate population size is dependent on the accuracy of harvest indicators, which is in turn dependent on the adequacy of information from harvesters. The return rate of even mandatory MNR harvest surveys can be low. If an increased harvesting effort is not appropriately reflected in returned surveys, a population may decline without effecting a reduction in harvest. Second, even if reliable harvest indicators are available, the status of a population can change significantly without being reflected in the harvest sex ratio or age structure. Therefore, harvest trends are subject to considerable misinterpretation.

Even when Ontario's mammalian predators have been recognized as being imperilled, such as with the eastern cougar, MNR has undertaken few direct measures to secure or recover their populations. This type of inaction has been attributed to the perceived fear within some government agencies that they will later have to "control" such species. However, it is far easier and significantly less controversial to conserve a wild species than to re-introduce it. Without doubt, MNR has the responsibility to ensure that such species are maintained and, ideally, recovered to the point where they are no longer at risk.

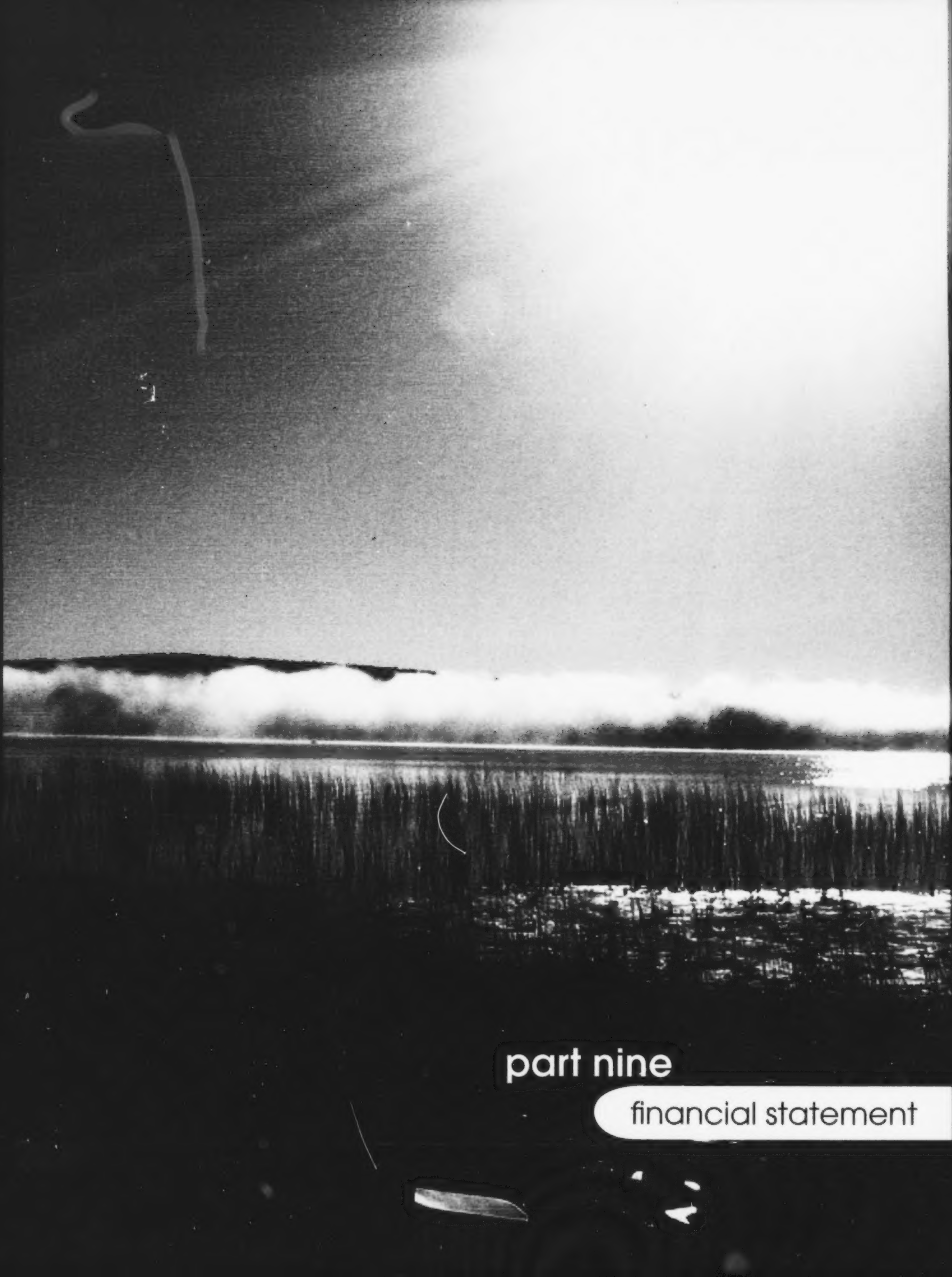
Very few policy decisions related to wildlife management are based strictly on biological data. For better or worse, other values – political, economic, social – often heavily influence the manner in which wildlife is managed. Nonetheless, concerted attempts should be made to acquire the best possible ecological knowledge to inform decision-making. The ECO believes that MNR should make the inter-specific dynamics and ecological functions of mammalian predators a research priority with the goal of better informing ministry policy. Even so, the ecological sciences should not be viewed as having immediate or indisputable solutions to all issues. The current lack of knowledge in some areas underscores the need for MNR to apply the precautionary principle to its management of mammalian predators.

For ministry comments, see page 220.

Recommendation 11:

The ECO recommends that MNR ensure that its [illegible]

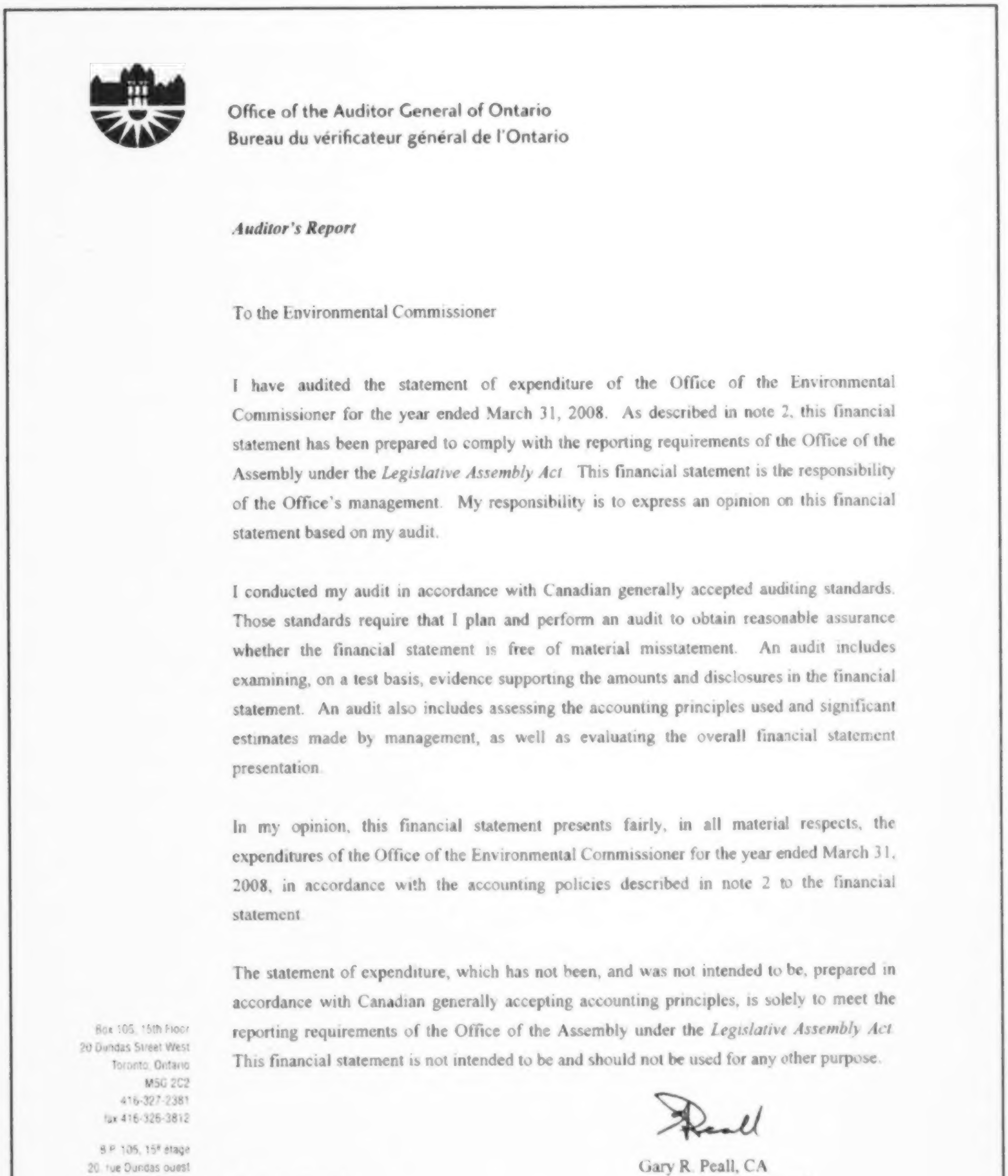
[illegible]



part nine

financial statement

Part 9 - Financial Statement



Office of the Auditor General of Ontario
Bureau du vérificateur général de l'Ontario

Auditor's Report

To the Environmental Commissioner

I have audited the statement of expenditure of the Office of the Environmental Commissioner for the year ended March 31, 2008. As described in note 2, this financial statement has been prepared to comply with the reporting requirements of the Office of the Assembly under the *Legislative Assembly Act*. This financial statement is the responsibility of the Office's management. My responsibility is to express an opinion on this financial statement based on my audit.

I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statement is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statement. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, this financial statement presents fairly, in all material respects, the expenditures of the Office of the Environmental Commissioner for the year ended March 31, 2008, in accordance with the accounting policies described in note 2 to the financial statement.

The statement of expenditure, which has not been, and was not intended to be, prepared in accordance with Canadian generally accepting accounting principles, is solely to meet the reporting requirements of the Office of the Assembly under the *Legislative Assembly Act*. This financial statement is not intended to be and should not be used for any other purpose.

Peall

Gary R. Peall, CA
Deputy Auditor General
Licensed Public Accountant

Toronto, Ontario
September 4, 2008

Box 105, 15th Floor
20 Dundas Street West
Toronto, Ontario
M5G 2C2
416-327-2381
fax 416-326-3812

B.P. 105, 15e étage
20, rue Dundas ouest
Toronto (Ontario)
M5G 2C2
416-327-2381
télécopieur 416-326-3812

www.auditor.on.ca

Office of the Environmental Commissioner

Statement of Expenditure
For the Year Ended March 31, 2008

	2008 $	2007 $
Salaries and wages	1,149,889	1,084,899
Employee benefits (Note 4)	216,944	199,063
Transportation and communication	75,970	71,124
Services	727,402	565,496
Supplies	70,353	108,318
	2,240,558	2,028,900

See accompanying notes to financial statement

Approved:

Environmental Commissioner

Office of the Environmental Commissioner

Notes to Financial Statement
March 31, 2008

1. Background

The Office of the Environmental Commissioner commenced operation May 30, 1994. The Environmental Commissioner is an independent officer of the Legislative Assembly of Ontario, and promotes the values, goals and purposes of the *Environmental Bill of Rights, 1993 (EBR)* to improve the quality of Ontario's natural environment. The Environmental Commissioner also monitors and reports on the application of the *EBR*, participation in the *EBR*, and reviews government accountability for environmental decision making.

2. Significant Accounting Policies

BASES OF ACCOUNTING

The Office follows the basis of accounting adopted for the Office of the Assembly as required by the *Legislative Assembly Act* and accordingly uses a modified cash basis of accounting which allows an additional 30 days to pay for expenditures incurred during the year just ended. This differs from Canadian generally accepted accounting principles in that for example liabilities incurred but unpaid within 30 days of the year end are not recorded until paid, and expenditures for assets such as computers and office furnishings are expensed in the year of acquisition rather than recorded as fixed assets and amortized over their useful lives.

3. Expenditures

Expenditures are paid out of monies appropriated by the Legislative Assembly of Ontario.

Certain administrative services are provided by the Office of the Assembly without charge.

4. Pension Plan and Post-retirement Benefits

The Office of the Environmental Commissioner provides pension benefits for its permanent employees (and to non-permanent employees who elect to participate) through participation in the Ontario Public Service Pension Plan (PSPF) which is a multiemployer plan established by the Province of Ontario. As the Office has insufficient information to apply defined benefit plan accounting, the pension expense represents the Office's contribution to the Plan during the year, which was $76,009 (2006 – $77,173) and is included in employee benefits.

5. Lease

The Office has a lease agreement with its landlord for its current premises expiring on February 28, 2013. The minimum lease payments for the remaining term of the lease are as follows:

	$
2008/09	219,400
2009/10	219,400
2010/11	219,400
2011/12	219,400
2012/13	201,100
	1,078,700

07/08 Recommendations

Recommendation 1 — Part 2.2 (EA Reform)

The ECO recommends that MOE's ongoing reforms of the environmental assessment process give renewed weight to up-front questions of "need" and "alternatives" for projects.

Recommendation 2 — Part 2.3 (Drought Response)

The ECO recommends that MOE revise its PTTW regulation and its basic terms and conditions for permits to take water to include mandatory water use reduction rules consistent with the Ontario Low Water Response plan.

Recommendation 3 — Part 2.4 (Air Quality Monitoring and Reporting)

The ECO recommends that MOE expand its air quality monitoring and reporting program to include a network of street-level monitoring stations.

Recommendation 4 — Part 2.5 (Greening the Ontario Government)

The ECO recommends that MGCS set up a central government greening office.

Recommendation 5 — Part 2.5 (Greening the Ontario Government)

The ECO recommends that the Ontario Government use its enormous purchasing power to drive economic markets for green products and services.

Recommendation 6 — Part 2.8 (Biodiversity in Crisis)

The ECO recommends that all prescribed ministries develop detailed action plans that specify the measures to conserve biodiversity that they will undertake.

Recommendation 7 — Part 2.9 (Land Acquisition Update)

The ECO recommends that MNR and MCL modify the current funding formula for land acquisition programs to reduce the financial burden on conservation organizations.

Recommendation 8 — Part 3.3 (Water Taking Charge Reg.)

The ECO recommends that MOE establish fees that are proportionate to the full administrative costs related to the government's water management programs.

Recommendation 9 — Part 3.6 (Fisheries Protocols)

The ECO recommends that MTO strengthen its environmental compliance and enforcement programs to ensure that contractors correctly implement the MTO/DFO/MNR fish habitat protocol.

Recommendation 10 — Part 8.1 (Roads – Pathways for Humans, Barriers for Functioning Ecosystems)

The ECO recommends that MNR and MTO collaborate to monitor wildlife crossings on existing roads to determine where mitigation is required and to work together early in the road planning process to identify areas where wildlife passages will be necessary.

Recommendation 11 — Part 8.2 (Mammalian Predators)

The ECO recommends that MNR ensure that its wildlife management policies and models appropriately reflect the role of mammalian predators in ecosystems.

ministry comments

Appendix A — Ministry Comments

In this Appendix, ministries provide feedback to the Environmental Commissioner on articles contained in the main part of the Annual Report.

Part 1: – Environmental Bill of Rights

(No comments from ministries)

Part 2: Significant Issues

Ontario's Action Plan on Climate Change: Deserving of Credit?

Government of Ontario Coordinated Response:

The Climate Change Secretariat was established to address climate change as a cross-cutting issue. The Climate Change Secretariat will coordinate efforts across ministries, report on and drive results necessary to achieve the Go Green Climate Change Action Plan targets.

Ministry of the Environment:

Many initiatives have been launched to reduce Green House Gas (GHG) emissions as outlined in the Action Plan, including:

- a regulation which requires cessation of the use of coal for electricity generation by the end of 2014;
- a proposal to set a cap of 11.5Mt of CO_2 from coal starting in 2011;
- investment of $150 million in a home retrofit program to help homeowners conserve energy and adopt green technologies;
- changes to the 2006 Building Code to ensure tough energy-efficiency standards;
- implementation of initiatives, such as the renewable energy standard offer program, that will develop 2,700 megawatts of new, renewable power by 2010;
- massive investment in transit through Move Ontario 2020 and consultation on the Metrolinx Regional Transportation Plan that will address the impact of different transportation alternatives on GHG emissions;
- a Far North Planning Initiative, which will protect at least 225,000 square kilometres of Ontario's Far North Boreal Region;
- regulations to require the capture of methane from landfills; and
- the establishment of a $6.6 million four-year Community Go Green Fund to support community-based GHG reduction projects.

Because MOE doesn't believe that an intensity-based plan, such as that proposed by the federal government, would achieve the necessary GHG reductions, in June 2008, Ontario and Québec signed a Memorandum of Understanding to develop a regional cap and trade system that can link with other systems. We are also partnering with other like-minded jurisdictions through our membership in the Western Climate Initiative.

Ontario is making significant progress on adaptation initiatives. To launch our ongoing work on adaptation, the Premier held a Climate Change Adaptation Summit in March 2008, which focused on identifying common issues and opportunities for cooperation. Ontario also established an Expert Panel on Climate Change Adaptation, which will advise on adaptation strategies. In addition, Ontario has provided funding to the Ontario Centre for Climate Impacts and Adaptation Resources, which will promote and deliver resources and outreach activities related to climate change impacts and adaptation. An 8-point Action Plan has been developed to incorporate climate change adaptation into drinking water source protection under the *Clean Water Act*, 2006. As a first step in this Action Plan, MOE has proposed that Source Protection Committees identify how the conclusions of the Assessment Reports are likely to be affected by climate change over the next 25 years. This proposal was included in the draft Assessment Reports regulation posted on the Environmental Registry.

Ontario's achievements to date provide building blocks towards meeting its 2020 and 2050 reduction targets as Ontario transitions to a low carbon future. Achieving these long-term targets will take the transformation of our society and technology. Continued investments in research, development and deployment of new sustainable technologies will position Ontario to take advantage of the low carbon economies of the future by ensuring our agriculture, forestry and manufacturing sectors have the skilled workforce and the infrastructure necessary for success.

The following are some of Ontario's strategies and commitments to date:

- $1.15 billion for Next Generation of Jobs Fund, a program to help companies invest in development and commercial sale of clean cars, clean fuels, and clean technologies.
- Launch of $17.5 billion plan to deliver on 52 transit initiatives in the Greater Toronto and Hamilton Area;
- $25 million to support a centre of research and innovation in the bio-economy;
- Nearly $4 million over four years to enhance modeling, monitoring and research capacity into the effects of climate change.

Ministry of Energy:

The Ministry of Energy and Infrastructure (a recent amalgamation of the former Ministry of Energy and the Ministry of Public Infrastructure Renewal) continues to move forward with its Go Green responsibilities, including the plan to replace coal-fired generation with cleaner sources of generation and conservation. The ministry will work closely with the Climate Change Secretariat, who will be reporting on progress and results in the Go Green Action Plan. The government's coal replacement plan is consistent with the advice of the OPA, who has indicated that coal-fired generation can be replaced by 2014 while ensuring system reliability.

The ministry has also taken recent action to reduce emissions from coal-fired generation to ensure they are cut by two-thirds below 2003 levels of 34.5 Mt CO_2 by 2011. On May 15, 2008, the Ministry of Energy directed Ontario Power Generation (OPG) to develop a strategy to reduce coal emissions in 2009 and 2010 and to meet interim CO_2 emissions targets of 19.6 Mt in 2009 and 15.6 Mt in 2010, on a forecast basis. These targets are intended to show progress in driving coal-fired emissions down toward the 2011 limit, as identified in MOE's regulatory proposal (010-3530) to amend O. Reg. 496/07 ("Cessation of Coal Use"), which would require OPG to limit GHG emissions from its coal plants to 11.5 Mt beginning in 2011, and to report on coal replacement progress quarterly, beginning in 2009.

The existing Integrated Power System Plan (IPSP) does not plan on conversion of the existing coal stations to alternate fuels (beyond a relatively small amount of biomass conversion that may be possible in northwestern Ontario, which is already accounted for in the IPSP forecasted emissions), but does include substantial amounts of new thermal generation to be built in areas of the province where it is required for coal replacement. Therefore, it is unlikely that the magnitude of GHG emission reductions from the coal phase-out would be substantially changed if the coal replacement plan was to be revised (in a future update to the IPSP) to convert some of the existing coal sites to thermal generation based on another fuel, as this change would also lead to a reduced need for new thermal generation at other locations in the province. Conservation forms an important part of the coal replacement plan, and will remain a priority as the government moves to a lower-emission electricity system, because the benefits of conservation include not only reduced GHG emissions, but also significant economic savings from the "avoided costs" of electricity generation that is unneeded as a result of reduced electricity consumption and demand achieved through conservation.

Finally, the ministry notes the ECO's comments about the financial challenges associated with implementing a building retrofit program. The ministry has taken action to provide financial incentives for energy conservation including:

- The Municipal Eco Challenge Fund, a $20 million grant program to help municipalities reduce GHG emissions;
- Infrastructure Ontario's OSIFA loan program, which has committed to the financing of more than $2 billion in approved low-interest loans, to help public sector partners renew public infrastructure, which includes improving energy efficiency;
- The Ontario Home Energy Audit and Retrofit program, which provides retrofit grants to homeowners; and
- The Ontario Solar Thermal Heating Incentive, a $14.4 million solar water heating program for the industrial, commercial, and institutional sectors.

In addition, the OPA's Electricity Retrofit Incentive Program provides incentives for electricity efficiency upgrades to commercial, industrial, agricultural and institutional facilities. The ministry also supports the transformation of the building sector through funding to support the World Green Building Council.

Ministry of Natural Resources:

On July 14, 2008 the government announced the launch of the Far North Planning Process to create a plan for Ontario's northern Boreal Forest. Permanently protecting these lands will help implement Ontario's Go Green Climate Change Action Plan as these lands represent a globally significant carbon sink. The Ontario government will be protecting more than 225,000 square kilometres — or more than half of the northern Boreal lands — in an interconnected network of conservation lands. Priority will be given to protect lands with key ecological features such as habitat for endangered species or important carbon sinks.

For MNR, adaptation is a central theme in MNR's actions related to implementing the Go Green Climate Change Action Plan. Examples of current projects to enhance adaptive capacity include 1) tree seed zone management, 2) participation in a national tree adaptation study – synthesis, 3) research on the impacts of changing soil conditions on tree growth and survival, and 4) adaptation reviews for a number of themes, including parks, terrestrial biodiversity, water, fisheries, forestry, and tourism. Tree planting is one of many mitigation techniques available, which collectively contribute to Ontario's commitment to reduce GHGs. Through the 50 Million Trees Program, the Ministry of Natural Resources is planting 50 million trees across southern Ontario by 2020. This will remove 3.8 million metric tonnes of carbon dioxide from the atmosphere by 2054, equivalent to 172 million car trips from Toronto to Barrie. Ontario's commitment is the biggest contribution to date in North America to the United Nations Billion Tree Campaign. In the first phase of the program, the Ministry of Natural Resources will invest up to $4 million and partner with the Trees Ontario. Trees Ontario will plant 1.2 million trees in 2008 and an estimated two million trees in 2009. MNR recognizes the need to promote native species and is working with clients and partners to explore options to address nursery capacity and use of native species.

Ministry of Municipal Affairs and Housing:

The Ministry of Municipal Affairs and Housing will work closely with other OPS Ministries, and the Climate Change Secretariat, who will coordinate the implementation of policies and programs that cut across government. MAH will work closely with the Climate Change Secretariat, who will be reporting on progress and results in the Go Green Action Plan. Ensuring that concrete plans are in place to achieve the Go Green targets is part of the work that the Climate Change Secretariat will do. The Ministry of Municipal Affairs and Housing is working in cooperation with the Secretariat on all of our Go Green initiatives.

Starting in 2007, MMAH launched a number of initiatives intended to support the capacity of industry to respond to enhanced energy efficiency requirements of the 2006 Building Code, including:

- The introduction of new Building Code technical training courses aimed at industry professionals;
- The development of energy efficiency skills training aimed at the construction trades; and
- The development of a best practices guideline on the safe and economical installation of near-full height basement insulation.

Ministry of Agriculture, Food and Rural Affairs:

The agricultural practices referenced in Ontario's Go Green Action Plan are a starting point. OMAFRA believes that maintaining and promoting agricultural practices that remove GHGs from the atmosphere (sink) are as important as the creation of new sink activities. OMAFRA is supportive of the incorporation of new practices and technologies that will decrease atmospheric GHG using market-based approaches.

With respect to the issue of landfill gas and methane control, OMAFRA is supporting the deployment of anaerobic digesters through the Ontario Biogas Systems Financial Assistance Program. All of the biogas systems funded by this program are planned to utilize the captured methane gas to generate energy. Some systems will produce electricity for sale under contract through the Ontario Power Authority's Renewable Energy Standard Offer Program. Other systems plan to use the methane to replace natural gas or other heating sources. All of these initiatives will help to contribute to GHG emission reductions for Ontario.

Ministry of Transportation:

MoveOntario 2020 is intended to be a 12-year plan for expanding rapid transit infrastructure in the Greater Toronto and Hamilton Area, to address traffic congestion and GHG emissions. Metrolinx was tasked with completing an implementation plan for MoveOntario 2020. The implementation plan will be part of the Metrolinx Regional Transportation Plan (RTP). The RTP will address in more detail the impact of different alternatives on GHG emissions. Recently released Metrolinx White Papers have examined GHG Climate Change emissions that could result from different rapid transit scenarios.

MTO is also undertaking other initiatives to reduce GHG emissions from the transportation sector, including: introducing speed limiters on trucks, a green commercial vehicle program, launching a Travel Demand Management grant program for municipalities, and partnering on active transportation programs and studies.

Environmental Assessment: A Vision Lost

Ministry of the Environment:

Ontario's Environmental Assessment process is continually changing to ensure that good decisions are made to protect the environment. Recent EA process improvements in the waste, energy and transit sectors are an important contribution to a cleaner environment. MOE continues to implement improvements to enhance the integrity, effectiveness and transparency of the EA program. Streamlining of process requirements has been implemented without compromising environmental protection.

EA Compliance

MOE has implemented a compliance program to ensure integrity of the EA process.

Changes have been made to better track compliance requirements and a range of compliance tools have been developed and are in use. All proponents completing an individual EA must now report back to the ministry on their compliance activities. The proponent must then respond within the set timeframe demonstrating how they will achieve compliance. All incidents of noncompliance are brought to the proponent's attention for action. Standardized monitoring and reporting requirements are in place and failures to address these are aggressively pursued through abatement action.

MOE conducts annual compliance audits of individual EA and Class EA projects; tracks compliance due dates; and conducts reviews of reported incidents of non-compliance on an ongoing basis. MOE is currently auditing at least 25% of approved individual EAs annually. MOE plans to focus on a select number of Class EAs and Part II Order requests where concerns have been identified or conditions have been imposed on the project.

Public Consultation: Section 32 of the *EBR* recognizes that the *EAA* requires a higher level of public scrutiny than that of instruments placed on the Environmental Registry, due to specific requirements for public notification, consultation, and inspection of EA documents at various stages in the EA process. MOE believes that emphasis on consultation at the planning stage through the EA process is the most effective approach to ensuring issues are identified and resolved before site specific decisions are made.

Under the Class EA process, the level of public consultation and assessment required for each category of projects matches the level of potential environmental effect anticipated. Not all projects warrant the same level of assessment. MOE has, where appropriate, conducted additional consultation prior to issuing a Certificate of Approval for instruments which are exempt from posting requirements on the *EBR*. Consultation in the form of information notices or exemption posting on the *EBR* or circulating draft Cs of A to Community Liaison Committees, First Nations, Public Liaison Committees and other concerned parties have been used more recently. Examples of additional consultation conducted for exempt Cs of A include the Newalta Stoney Creek Landfill C of A and New Conditions for the Kitchener Street Landfill C of A in Orillia.

Recognizing Appropriate Levels of Environmental Decision-Making: Since the *EAA* was established, broader level infrastructure planning has evolved substantially. Provincial planning is often undertaken to facilitate other legislative requirements and is subject to ministerial or cabinet approval. At the municipal level, master planning is approved by council and supports approvals required under the *Planning Act* and the *EAA*. This planning includes public consultation. If consultation and assessment work has been undertaken it can be considered in the EA process at the project level. The *EAA* is focused specifically on the assessment of environmental effects. In many cases, broad based policies or plans do not contain the necessary details to meet the information requirements of the *EAA*. As such, most applications of the *EAA* for this purpose would be limited. Applying the *EAA* to broad policy/planning initiatives is a difficult challenge that has been recognized by EA administrators across Canada. One of four subcommittees of the EA Task Group commissioned by the Canadian Council of Ministers of the Environment has been established to begin to define what is being described as Strategic EAs (Assessment of regional plans and programs for future development decision-making) and identify some potential models/approaches. Public consultation on the multi-jurisdictional Strategic EA report is expected to occur in early 2009. As a member of the overarching EA Task Group, Ontario will be reviewing and inputting into all EA streamlining activities, and will be working with other jurisdictions to address challenges. There is an opportunity under the MEA Class EA to complete a Master Plan, and many municipalities are successfully taking advantage of this process in addressing phases I and II of the Class EA (need/alternatives).

Progress on Improvements to the EA Program: Codes of practice have been completed for preparing and reviewing EA and Class EA projects. The codes provide instructions and clarity to proponents in addressing the critical requirements and MOE expectations for EA applications. The codes also will assist the public in better understanding and navigating the EA process, enabling more effective public participation. To improve public access to information, MOE will also update the EA Activities website this summer with new content and an improved format. The site will include information pertaining to projects, proponents, the EA program and its recent improvements. In addition, proponents are now required to create their own web site for an undertaking as required in the Terms of Reference Code of Practice and it will identify key documents, and the current status and time lines for a project. MOE has also enhanced its outreach and training for ministry staff, practitioners and stakeholders.

Ministry of Natural Resources:

In July, 2008 under the launch of the Far North Planning Process a new working relationship with First Nations was enshrined. In addition to a much greater say on the future of their communities and traditional lands, the process also creates opportunities for economic development in these remote communities. Through this process the government will work with individual Aboriginal communities to begin a local land-use planning process. To ensure proper planning and community input, new forestry in the Far North will require community land use plans supported by local Aboriginal communities. To support this planning, the Ontario Government is undertaking scientific mapping of the region's biodiversity, carbon sequestration potential, Aboriginal cultural heritage and mineral and natural resource potential.

The consideration of forest management as a significant economic renewal opportunity for the rapidly-growing Aboriginal community of Pikangikum First Nation began ten years ago, and resulted in a land use strategy for the Whitefeather Forest, which was jointly endorsed in 2006 by MNR and Pikangikum First Nation. The land use strategy determined that forest management is a desired and compatible land use on approximately 65% of the Whitefeather Forest, and provides guiding direction for the manner in which forest management would take place. The land use strategy also provides broad direction for environmental protection, and identifies approximately 35% of the Whitefeather Forest as dedicated protected areas.

A Declaration Order, which builds on Ontario's 30 years of history and experience with environmental assessment requirements for forest management, is an appropriate mechanism for *Environmental Assessment Act* (*EAA*) coverage for forest management on the Whitefeather Forest. The effects of forest management on the environment, including the boreal forest, were comprehensively addressed through a class environmental assessment, including a 4-½ year EA hearing. The EAA approval that was granted in 1994, and amended and extended in 2003 via Declaration Order MNR-71 (with further amendments in 2007), provides comprehensive requirements for protection of the environment. In addition, Declaration Order MNR-71 includes provisions which require MNR to ensure that components of the forest management program are kept current (e.g., Condition 38 - Review and Revision of Guides).

The Whitefeather Forest is immediately adjacent to areas of the boreal forest where forest management is currently carried out under Declaration Order MNR-71. To support both the land use strategy and the request for *EAA* coverage, MNR and Pikangikum First Nation have undertaken considerable data collection for the Whitefeather Forest over the past ten years. As a result, MNR and Pikangikum First Nation have a comprehensive knowledge of the Whitefeather Forest environment, and have concluded that it is largely similar to the environment of the adjacent areas, with some notable circumstances that can be accommodated through provisions of a declaration order.

Ministry of Transportation:

MTO is fully incorporating the goals and objectives of the Growth Plan and the Greenbelt Plan into its planning and EA study processes for the Niagara to GTA and GTA West Corridor studies, as well as the 427 north and 407 east extension EAs.

Drought in Ontario? Groundwater and Surface Water Impacts and Response

Ministry of the Environment:

The Permit to Take Water (PTTW) program allows for beneficial use of water that does not interfere with other uses or, in the case of surface waters, the natural functions of aquatic habitat. The program is not intended to be a water allocation regime. The program takes a rigorous and proactive approach in assessing the environmental impacts of proposed water takings. The ministry manages compliance with PTTWs through an approach that complements the OLWR Plan, we focus compliance activities (including education, outreach, and inspections) on those areas where the greatest environmental benefit will occur, we promote water conservation, and we address water interference complaints. We are working with our partner agencies to ensure effective enforcement of water taking in areas that are "High Use" or susceptible to low flows. MOE will not hesitate to take strong action to protect our water resources, particularly during low water conditions.

As the ECO notes, not all water taking is regulated by PTTW. Moreover, water taking that is regulated often sees the very large amounts immediately returned to source, e.g. industrial cooling and hydropower generation. Drought is a relatively infrequent climatic phenomenon and can be interspersed with seasons of extreme wetness, as was the case leading up to 2007 when Ontario experienced some of the wettest seasons on record. While the regulation of water taking contributes significantly to ensuring fair access to water, water conservation and water use efficiency, drought will not be abated by only restricting water taking. Both the PTTW program and the OLWR Plan will adapt to climate change, changing expectations and new initiatives. Work is underway to consider the integration of the *Clean Water Act* as it is implemented with water budgets being developed, and to implement the *Safeguarding and Sustaining Ontario's Water Act* which will bring water charges and water conservation goals and objectives.

Ministry of Natural Resources:

Ontario Low Water Response (OLWR) is a program to prepare the province to manage in the event of low water conditions and drought. Under OLWR, Local Water Response Teams (WRTs) continue to play a significant role in mitigating the impacts of low water and drought conditions but are unable to prevent drought conditions given these are climatologically-based. In order for OLWR to be effective WRTs reach consensus on water use reduction activities for Level I and II and members report back on these water use reduction activities. For a Level III condition, Water Directors require information on WRT water use reduction activities. To assist WRTs in providing sufficient information to recommend a Level III Low Water Condition, MNR is working with MOE, MMAH and two conservation authorities to complete two pilot projects. These pilot projects will help WRTs develop Level III recommendation documents to be used as a guide to assist WRTs in recommending Level III in a timely manner. These pilots have also resulted in changes this year to improve communications between WRTs and water users to obtain adequate information on water use reductions at Level I and II. WRTs will be able to use these improved communications to report on water use reductions should they be required to recommend a Level III Low Water Condition.

Air Quality Monitoring and Reporting in Ontario – Fostering a False Sense of Security

Ministry of the Environment:

The current Air Quality Index (AQI) gives a broad regional perspective on air pollutants particularly the key components of smog, ozone and fine Particulate Matter. The AQI is useful for guiding an individual's outdoors activities as they relate to air standards for six common air pollutants. Ontario has been working with the federal government on the development of the new Air Quality Health Index (AQHI), a health based index relating real health outcomes to air pollutant data in Canadian cities. The AQHI reflects the significance of vehicular emissions to health outcomes. Ontario has been working with the City of Ottawa and the federal government to explore the impact of vehicle emissions at street level in that City. Ontario collects air quality data and makes AQHI predictions jointly with the federal government to issue forecasts for Toronto/Greater Toronto Area. MOE keeps abreast of the results from local ambient air quality monitoring stations, where available, which is reflective of the state of stressed local air sheds. As part of the MOE's Certificate of Approval review process, the MOE can impose conditions on facilities situated in stressed local air sheds.

The Greening of the Ontario Government

Government of Ontario Coordinated Response:

The Climate Change Secretariat will work with ministries on a specific, action-oriented greening plan. It will build on work that has already been done, help to mobilize initiatives underway, and take a consolidated approach to reduce the carbon footprint of the Ontario Public Service.

Ministry of Government and Consumer Services:

The Ministry of Government Services (formerly the Ministry of Government and Consumer Services) has implemented the following green initiatives:

- In a recent edition of the government's newsletter (published by the ministry), Shelley Jamieson, Secretary of the Cabinet, highlighted ways that employees are helping reduce the government's carbon footprint (e.g., turning computers off each night, recycling, expanding use of teleconferencing and green procurement).
- The Information and Information Technology organization is developing and will launch a strategy designed to reduce power consumption and carbon emissions, and minimize the amount of e-waste accumulating in the province's landfills.
- Over 40,000 cathode-ray tube (CRT) monitors were replaced with liquid crystal display (LCD) monitors. The number of OPS I&IT servers was reduced by 1050, which resulted in an annual reduction of approximately 8.5 million kWh and 2,207 tons of CO_2 emissions.
- The government increased the use of hybrid vehicles. As of March 31, 2008, the fleet had 411 hybrid vehicles in use or on order, significantly ahead of its December 2006 target of 325 hybrids by 2012.

Ministry of the Environment:

MOE is accelerating the greening of its internal operations. Through Project Green, MOE has undertaken an innovative project to measure, assess and shrink its carbon footprint. MOE recently completed an assessment of its carbon footprint, and is now moving to reduce its carbon emissions. By measuring its organizational impact, the MOE can now move to systematically reduce that impact through greening and reduction efforts. A key role for MOE's Project Green has been to engage MOE's many voluntary green teams and staff-led initiatives across the province. As well, MOE is currently formalizing a structure of Green Working Groups, with representation from all divisions, to mobilize this grassroots energy and enhance the corporate greening capacity.

Protected Areas Planning: Managing for Ecological Integrity?

Ministry of Natural Resources:

With the passage of the *Provincial Parks and Conservation Resources Act* in 2006, a system of provincial parks and conservation reserves are permanently protected. Regulations under the *Provincial Parks and Conservation Reserves Act* provide strong, effective tools to protect ecological integrity. The regulations are not intended to provide policies for defining ecological integrity for individual parks and conservation reserves. Direction about protection of ecological integrity for individual protected areas is developed through protected areas planning. The regulatory tools are then applied appropriately. Park specific provisions in the regulations reflect current management direction for individual parks and will be updated as new management direction is approved. MNR is developing guidelines to help staff apply ecological integrity principles to protected areas planning and management. As well, the Provincial Parks and Conservation Reserves Class Environmental Assessment provides a basis for considering impacts of projects on ecological integrity.

The regulation on mechanized use in wilderness parks reflects long standing policies for wilderness parks. Only small portions of wilderness parks are open to mechanized use. As management plans are approved for wilderness parks, specific restrictions on mechanized use will be put into regulation. For all provincial parks and conservation reserves in the Temagami area there is approved management direction. Management direction provides general guidance for management. Detailed strategies will be developed where necessary to guide resource management, monitoring, research, etc.

The park management plan for Lady Evelyn – Smoothwater Provincial Park calls for a reduction in existing motorized use, and limits such use to small portions of the park. This approach will enhance protection of the park, while addressing concerns of some long-standing park users.

Doing Less with Less: Rebuilding MOE and MNR – A Glimmer of Hope

Ministry of Natural Resources:

MNR is pleased that its budget has been increased by 16.2% over the past two years, and will continue to focus its efforts on the Far North planning, investment in the forestry sector, support for renewable energy generation, and implementation of an Ecological Framework for Recreational Fisheries Management.

Ministry of the Environment:

MOE's 2008-09 budget totals $398.0 million (operating and capital), which is an increase of $73.3 million (or 22.6%) over the 2007-08 budget of $324.6 million. This budget provides the funding needed for MOE to continue the high level of environmental protection that Ontarians expect and deserve. The additional funding will be focussed on environmental priorities including: enhancing inspection and enforcement capacity; implementing the Climate Change plan; reducing toxics in the environment; protecting water from source to tap; protecting Ontario's lakes; maximizing waste diversion and cleaning up environmentally contaminated sites.

Biodiversity in Crisis

Ministry of Natural Resources

The July 2008 launch of the Far North Planning Process, together with the 2007 passage of the *Endangered Species Act*, will preserve habitat that supports Ontario's threatened and endangered species, helping to ensure Ontario's biodiversity. Ontario has also increased its investment in biodiversity initiatives including:

- Incentives to support *Endangered Species Act, 2007* implementation;
- planting 50 million trees in southern Ontario by 2020
- enhanced protection and recovery of Great Lakes

Ontario's Biodiversity Strategy (OBS) was produced by a broad spectrum of stakeholders, aboriginal groups and ministries. Collaboration is also necessary to implement the Strategy The members of the Ontario Biodiversity Council, Biodiversity Education and Awareness Network, Stewardship Network of Ontario and Biodiversity Science Forum are working with government and non-government groups to implement the OBS. MNR also has established an Ontario Public Service (OPS) Biodiversity network and has met to discuss the Strategy and common outcomes. Achievements include:

- release of "Interim Report on Ontario's Biodiversity"
- new *Parks and Conservation Reserves Act* and *Endangered Species Act*
- integration of biodiversity into the science curriculum
- implementation of *Greenbelt Act* and Plan, *Places to Grow Act*
- Growth Plan for the Greater Golden Horseshoe released and

northern Ontario growth plan under development

- Canada-Ontario 2007 Agreement Respecting the Great Lakes Basin Ecosystem contains specific goals for biodiversity and invasive species
- new broad-scale fisheries monitoring program, associated with the Ecological Framework for Fisheries Management
- work is proceeding on definition of priority biodiversity outcomes, performance measures and actions for both government and Ontario Biodiversity Council
- working with federal, provincial and territorial governments on development of a National Ecosystem Status and Trends Report for 2010
- Initiation of the 2010 State of Ontario's Biodiversity Report

Land Acquisition Program Update

Ministry of Natural Resources:

MNR is now very well positioned to respond to key ECO issues:

- MNR consolidated its securement initiatives into one umbrella program in 2005-06. Rather than "initiative based approaches," this consolidation reaffirms MNR as the lead provincial agency for natural area land securement, ensuring a strategic and coordinated approach. MNR has established successful delivery partnerships with provincial ENGOs.
- Information on MNR's land securement program is now publicly available on our Internet site. MNR will look to the Registry as a consultation tool for future securement policy proposals. Given the "open market" nature of land securement, prospective properties will not be posted to the Registry.
- Ontario's March 2008 budget included Government commitment to increased land securement base funding for MNR.

Part 3: Ministry Environmental Decisions

Review of Posted Decision: Canada – Ontario Agreement Respecting the Great Lakes Basin Ecosystem

Ministry of the Environment:

MOE is committed to strengthening stakeholder engagement in Great Lakes restoration and on July 17, 2008, signed a "Memorandum of Co-operation" with the Great Lakes-St Lawrence Cities Initiative. Actions in a number of AOCs are close to completion. Our work in restoring these AOCs remains an outstanding example of open/transparent decision-making and public consultation. There is need for further infrastructure investment in a number of AOCs and the province is working with municipalities and the federal government to address this. Ontario has committed over $60-million to implement the current COA.

Ministry of Natural Resources:

MNR invests $5.85M annually into COA projects primarily focussed on lake and basin sustainability to conserve and protect aquatic ecosystems, species and genetic diversity and reduce the threat of aquatic invasive species. Currently, there are 143 ongoing projects in 2008/09. The projects involve over 220 delivery partners including non-government organizations, Aboriginal communities/organizations, other Federal/Provincial government agencies, U.S. State/Federal agencies, binational organizations, municipalities, Conservation Authorities, Academia, Businesses/industries, Stewardship Councils and private citizens. An MNR developed COA project tracker assists with information management and reporting on progress and achieving results.

MOE's Financial Plans Regulation for Municipal Drinking Water Systems

Ministry of the Environment:

The Financial Plans Regulation (FPR) is a key step in the province's approach to ensuring the financial sustainability of municipal drinking water systems. The regulation takes a flexible approach to requiring municipalities to plan for the operation, maintenance and renewal of their drinking water systems. This approach builds on recent changes to municipal accounting standards and avoids duplication by allowing municipalities to use existing documents if they satisfy the requirements of the regulation. MOE has also developed a Financial Plans Guideline that encourages more comprehensive financial planning for both water and wastewater systems as a companion to the Financial Plans Regulation. The guideline includes the key concepts that are integral to achieving financial sustainability, such as the user pay principle and water conservation. Municipalities are strongly encouraged to adopt the guideline in a manner that best meets their unique circumstances. The province continues to work on developing an approach to full cost recovery that will be viable for all Ontario municipalities, while ensuring that water and wastewater services remain affordable.

The Water Taking Charge Regulation

Ministry of the Environment:

O. Reg. 450/07 implements a charge for highly consumptive water users as a first step. Other commercial and industrial uses will be phased in later. The charge is one component of a provincial water conservation framework. The primary purpose of the charge is to recover some of the costs of provincial water quantity management programs. As a regulatory charge, a charge framework must demonstrate a clear link between the charge, the program costs recovered and those being charged. Only program costs associated with the charged users can be recovered. The charge must be reviewed every 5 years. Should the province's water quantity management costs increase over this time, the charge could be increased if the costs can be attributed to the facilities being charged and pending constitutional law review.

Environmental Penalty Regulations

Ministry of the Environment:

MOE appreciates ECO's support for the development of the Environmental Penalties (EPs) program. EPs are not intended to displace prosecutions. EPs and prosecutions perform different and complementary roles. EPs are intended to bring violators rapidly back into compliance by allowing the ministry to impose an EP within a few days of a spill or a general offence, whereas prosecutions are intended to deter more serious pollution incidents and chronic offenders. EPs are being phased in as follows:

- Phase I (which took effect August 1, 2007) covers serious violations relating to unlawful discharges, i.e. spills, exceedances of discharge limits, failures to report spills and failures to clean up spills;
- Phase II (which comes into effect December 1, 2008) includes all other violations.

MOE agrees it must remain vigilant, which is why the government built a five-year review process on the EP program into the *Environmental Protection Act* (*EPA*). The report must include an analysis of the impact EPs have had on prosecutions under the *EPA* and recommendations on the types of contraventions and circumstances in which EP Orders should be issued, including consideration of program expansion. MOE looks forward to the opportunity to review the EP program.

Amendments to Regulation 903, R.R.O. 1990 (Wells Regulation)

Ministry of the Environment:

The government amended Regulation 903 in 2007 (the amended regulation was posted on the Environmental Registry in July 2007 and become effective in December 2007). The amendments were to make well construction requirements clearer and more workable to ensure wells are properly constructed to better safeguard public health and groundwater resources. The amendments provide clear direction to private well owners, well contractors and technicians about legal requirements for construction and proper abandonment of wells in Ontario.

MOE is involved in a number of activities specifically aimed at ensuring compliance with the regulation. This included a 2006 province-wide inspection initiative as a result of reports of improper well construction. The results of the initiative found an overall high rate of compliance. MOE has also implemented an education and outreach program, for example Well Aware, for well owners.

Fisheries Protocols Undermined by Crippling Cutbacks

Ministry of Natural Resources:

MNR appreciates the ECO's recognition of the ministry's role in the development of the 2007 Compliance Protocol and the 2006 MTO Protocol. MNR will monitor the implementation of the Inter-Jurisdictional Compliance Protocol for Fish Habitat and Associated Water Quality through its participation on the Canada-Ontario Fisheries Advisory Board and the Aquatic Resource Management Advisory Committee, and, as required, will update the Protocol to reflect changes in legislation and policy.

Ministry of Transportation:

The ministry appreciates the comments and suggestions of the ECO for improvement of environmental performance on construction projects. The ministry enforces its contracts and agreements with service providers, there are robust oversight functions with resources and real consequences for non-conformance. There are a number of effective systems and mechanisms in place to address and ensure environmental compliance.

Legislative Brownfield Reform

Ministry of the Environment:

A 2006 inter-jurisdictional review found brownfield-related legislation granting immunity against third-party civil liability is extremely rare. MOE provided certain civil liability protection to municipalities and continues to focus on clarifying regulatory risk thereby reducing civil risk. Changes to the *Environmental Protection Act* related to horizontal severances do not affect the ability of a landowner to sever the surface land from the subsurface. Instead, the changes require a Qualified Person to certify that the property is safe for the intended use by addressing contaminants in, on, or under a property. MOE will ensure adequate resources for the upfront review of the Record of Site Condition, and is actively recruiting. MOE is assessing the cost of a pre-filing review to ensure prompt processing of submissions. Further, clear regulatory requirements will inform the Qualified Person of minimum standards thereby enhancing the quality of information provided.

Ministry of Municipal Affairs and Housing

The legislative brownfield reforms passed as part of the 2007 Budget were designed to address commonly identified regulatory barriers to brownfield remediation and redevelopment. It was based on detailed discussions with those active in brownfields, and inter-jurisdictional research on the liability of relief offered elsewhere. In response to the initial *EBR* posting, the government received praise from the municipal, land development, legal and environmental science sectors and others for the approach taken. Regulatory liability is seen as a possible cause of action for civil lawsuits and an inhibitor to the sale of formerly contaminated lands. Legislative reforms are an important step and have resulted in Ontario being recognized as a leading jurisdiction nationally on this issue.

Developing an Odour Policy Framework

Ministry of the Environment:

MOE's proposals focused on odour-based standards/guidelines. MOE will continue to set odour based limits as appropriate. Any future overall odour policy framework will be subject to further stakeholder consultation. In the interim, MOE considers the impact of odour on the neighbouring public through conditions in Certificates of Approval (Cs of A). Some applicants may be required to implement complaint management systems to track, resolve and report on odour complaints. MOE assesses odour complaints and as appropriate conducts site visits and implements abatement actions which may include orders and/or amendments to Cs of A. These complaints/follow-up actions are documented by MOE. In June 2008, MOE published guidance on how to assess human activities related to odour. MOE understands the importance of the Land Use Policy Guidelines and is committed to updating these guidelines to be consistent with recent policy changes to support strong communities and a clean and healthy environment.

Burning of Used Oil in Space Heaters Banned in Southern Ontario

Ministry of the Environment:

Regulation 347 (General - Waste Management) was amended on June 27, 2007 to ban the burning of used oil in space heaters. Used automotive oil was not formulated for use as fuel and contains more contaminants than home heating oil and natural gas. MOE supports the recycling of used oil; it is a resource that can be readily re-refined and re-used. Reg. 347 provides some generators of small amounts of hazardous waste (e.g. retail motor vehicle service stations, doctors and dentists) with an administrative exemption. They are not required to register or manifest their waste provided they use ministry-approved waste carriers, but are subject to the same ministry inspections as other hazardous waste generators.

Municipal Hazardous or Special Waste (MHSW) Program Plan

Ministry of the Environment:

MOE is driving waste diversion through a number of initiatives. Waste Diversion Ontario's diversion plan for electronic waste was approved in July and will provide convenient options for people and businesses to reuse and recycle their electronics. MOE implemented a Bag it Back program at the LCBO and brokered an agreement with industry to reduce the number of plastic bags distributed in Ontario. MOE is also implementing new rules to promote recycling and undertaking an effort to assist businesses and industry increase diversion rates. In addition, MOE have begun a comprehensive review of the *Waste Diversion Act*. The federal government implements programs to assess chemicals and develop management approaches, including bans and other restrictions. Ontario has committed to developing a comprehensive toxics reduction strategy including legislation and, as a first step, passed legislation in June 2008 banning the cosmetic use of pesticides.

Ministry of Transportation Environmental Standards Project

Ministry of Natural Resources:

MNR worked with MTO to provide technical input to many of the Environmental Standards Project documents, including the "Environmental Guide for Wildlife in the Oak Ridges Moraine" (the Guide). MNR understands that the Guide applies after planning for the transportation facility has been concluded, so the Guide is focussed on mitigation. MNR recognizes the importance of both mitigation and planning related to highway projects to protect wildlife populations and habitats. MNR is supportive of the following principle stated in the Guide: "the (highway) facility has already been routed to avoid, or minimize impact on, sensitive habitat areas."

Ministry of Transportation:

MTO is committed to environmental stewardship and the Environmental Standards Project is a key initiative towards achieving this. Over the past two years, MTO's Provincial and Environmental Planning Office project staff met with the ECO and shared information with the ECO staff about the Standards Project, including the on-line publication of MTO's Environmental Standards and Practices. MTO will continue to update and add to its Environmental Standards and Practices in the future, including guidelines for the planning phases of Environmental Assessment for transportation. (*See also MTO comment under "Fisheries Protocols Undermined by Crippling Cutbacks" above.*)

Regulatory Modernization Act, 2007

Ministry of the Environment:

MOE is working with MOL and other ministries to implement the *Regulatory Modernization Act* (*RMA*). The RMA strengthens environmental protection by making it easier for MOE staff to obtain information from other ministries on environmental risks and repeat offenders. This includes inspectors from one ministry providing a "heads-up" to MOE staff if environmental non-compliance is observed. The *RMA* will enable greater collaboration between MOE and other ministries to resolve common issues of non-compliance. The MOE agrees that its inspectors and investigators are the primary experts for responding to environmental matters.

Ministry of Labour:

MOL has historically not posted proposed bills on the Environmental Registry and was unaware that bills should be posted upon introduction. The ministry will ensure that future relevant bills are posted. To seek public comment, MOL used section 6 of the *EBR* to post the *RMA* proposal since the Act is not prescribed under the *EBR*. MOL recognizes super-inspectors are not effective given the complex, technical work of regulatory staff. The *RMA* imposes strict requirements for establishing teams, and required training will be provided to affected staff.

Part 4: Applications for Review and Investigation

Permitting Water Takings by Commercial Water Bottlers

Ministry of the Environment:

Water takings with potential adverse environmental impacts can be refused, or existing ones can be curtailed or revoked, e.g. measures include monitoring, adjusting takings, conditions on PTTWs and water conservation. In watersheds with high water use, Directors must refuse permits for new or expanded takings that remove water from a watershed, e.g. bottled water. PTTWs do not allocate water, but regulate fair access to water and safeguard water availability. PTTWs oblige water takers to adjust takings to avoid interfering with other water users or with the natural functions of aquatic habitat.

Work underway to better safeguard water availability includes water quantity risk assessment through source protection planning, changes to PTTW program under Safeguarding and *Sustaining Ontario's Water Act*, for example regulation-making authority for water conservation plans, and clarification of conditions that can be imposed on PTTWs. MOE Directors must consider issues relating to the use and availability of water, for example water conservation impacts on water balance and sustainable yield; low water conditions; and planned municipal use of water. The Nestlé example identified by ECO demonstrates how extensive consultation with interested stakeholders successfully clarified issues.

Land Use Planning and Protecting Groundwater Resources

Ministry of the Environment:

MOE agreed to undertake a review of the need for new provincial policy to protect the groundwater recharge in watersheds along the Paris Galt Moraine. MOE is working with an inter-ministerial committee that includes Ministry of Municipal Affairs and Housing and the Ministry of Natural Resources to complete the review.

Ministry of Municipal Affairs and Housing:

MOE, as the ministry with the most authority and expertise on water issues, is taking the lead on studying the Paris Galt and Waterloo moraines with MNR and MMAH providing assistance. The government's planning reforms have established stronger protection for the environment in the planning system. The Provincial Policy Statement (PPS) adopted in 2005, in conjunction with a stronger "shall be consistent with" implementation standard, provides enhanced protection for surface and ground water features, significant wetlands, natural heritage systems, and significant wildlife habitat. Provincial plans such as the Greenbelt Plan also provide strong protection for ecological features and functions. As well, the *Planning Act* recognizes the protection of ecological systems, including natural areas, features and functions, as a matter of provincial interest.

Dofasco KOBM Meltshop

Ministry of the Environment:

ArcelorMittal Dofasco Inc. is applying for one Comprehensive (Air) C of A that will replace all existing Air certificates, including the three for the KOBM.

As part of the Comprehensive C of A application review process, the MOE can impose conditions on:

- new or historically unapproved sources to cover all emissions to air from the operations, including visible emissions;
- monitoring, operation and maintenance conditions;
- facilities in stressed local airsheds. Although O Reg 419/05 does not make mention of cumulative impacts or the consideration of the local airshed, the MOE's C of A review process will take into consideration the Hamilton airshed. MOE staff track the results from the Hamilton Air Monitoring Network, which is reflective of the state of the local airshed; and
- continuous emissions monitoring, source testing, and reporting requirements.

The MOE agrees that when it considers the comprehensive C of A application it should consider the need for additional emission controls. The Comprehensive C of A is planned to be submitted to the MOE by Fall 2008.

Reforming the *Mining Act*

Ministry of Northern Development and Mines:

The Far North Land Use Planning announcement on July 14, 2008 indicated that the Government will introduce amendments to the *Mining Act* to: modernize staking and exploration practices to be more respective of private landowners and Aboriginal communities; to ensure early consultation and accommodation of Aboriginal communities before exploration or mine development commences; that the opening of new mines in the Far North would require community land use plans supported by local Aboriginal communities; and, that the review of the *Mining Act* should begin in early August 2008, with new rules in place in 2009.

Part 5: The Environmental Registry

Quality of Information

Ministry of the Environment:

In 2006 stakeholders and experts (from ENGOs, business and industry, science and academic community) were invited to roundtables to help inform the government's direction, approach and vision for a climate change and clean air plan. Fifteen roundtable sessions were held with over 300 stakeholders from various sectors including transportation, urban planning, health, natural resources and energy. At the June 2007 Shared Air Summit, the Premier announced Ontario's greenhouse gas emissions reduction targets. The Go Green Action Plan was released in August 2007. Individual initiatives will be posted on the Environmental Registry as required. For example, on May 16, 2008 Ontario posted a proposed regulation that would amend O. Reg. 496/07, Cessation of Coal Use. To ensure accountability, the government will report annually to the Legislature on progress in achieving the climate change goals set out in Go Green.

Unposted Decisions (MOE's Amendments to Regulation 334 under the *EAA*)

Ministry of the Environment:

A Minister Zoning Order (MZO) allows a proponent of a proposed undertaking to secure appropriate land use zoning and 'ready the land' from an administrative planning perspective only. Where a project is subject to an EA, an EA must still be carried out and approved before the proponent can move forward with the proposed undertaking. The regulation does not affect the integrity of the EA approvals process or allow construction of an undertaking before an EA is approved.

Ministry of Municipal Affairs and Housing:

While zoning is normally undertaken by municipalities, the Minister of MMAH can make zoning orders (MZOs) to control land use. They are used to ensure good planning, orderly development and/or specific provincial land use objectives. MZOs can be used to restrict development (e.g., the 2003 interim 'moratorium' for the Greenbelt). A MZO allows the Minister to quickly put standards in place to protect provincial interests while providing an opportunity for consultation, policy development and new legislation. It can, in special circumstances, set specific requirements for new development. A MZO can be amended following the approval of an EA if issues identified during the EA require it.

Information Notices (Sewer Use BMP Documents)

Ministry of the Environment:

The Best Management Practices documents complement the application of municipal sewer use bylaws by providing technical information about pollution prevention and pre-treatment technologies to industries and municipalities. Under a Canadian Council of the Ministers of the Environment (CCME) initiative, the federal government and provinces are working together to develop a model bylaw.

Exception Notices (DeBeers PTTW Notices)

Ministry of the Environment:

A federal comprehensive study completed under the *Canadian Environmental Assessment Act* included a public consultation that was deemed by MOE to be substantially equivalent to the consultation process required under the *EBR*.

Late Decision Notices and Undecided Proposals

Ministry of the Environment:

MOE is updating outstanding decision notices and has implemented a strategy for keeping notices current. MOE is working with the Ministry of Education to finalize the decision about prescribing that ministry under *EBR*. A final notice will be posted on the Environmental Registry on SEVs. MOE is reviewing options for the decision on the *Drinking Water Source Protection Act*.

Part 6: Ministry Progress

Keeping the *EBR* in Sync with New Laws and Government Initiatives

Endangered Species Act

Ministry of Natural Resources:

The *Endangered Species Act* was prescribed for the purposes of the *EBR* on June 19, 2008.

Ontario Heritage Act

Ministry of Culture:

The Ministry of Culture (MCL) has completed its review and will be working with MOE to prescribe the *OHA* for the purposes of posting proposals for regulations. Although the *OHA* was not prescribed during 2005-06, MCL made a practice of posting notices on the Registry for four proposed regulations under the *OHA*. This was done in support of the intent and spirit of the *EBR*, and to be consistent with MCL's earlier posting of proposals for *OHA* amendments.

Making the Ontario Heritage Trust Subject to the *EBR*

Ministry of Culture:

The Ministry of Culture reconfirms that it will not be proposing to prescribe the Ontario Heritage Trust under the *EBR*. MCL continues to believe that, as ministries are responsible for policy matters within the scope of the *EBR* and as MCL is prescribed, there is no need to prescribe the OHT under the *EBR*. MCL's and MOE's view is that agencies, boards and commissions are not included under the *EBR* and it is unprecedented to prescribe them. MCL will continue to emphasize with OHT the importance of appropriate and timely consultation/information-sharing with stakeholders and the public on OHT activities.

Making the Ministry of Public Infrastructure Renewal Subject to the *EBR*

On June 20, 2008, the Premier announced that the Ministry of Energy and Ministry of Public Infrastructure Renewal will be merged into the Ministry of Energy and Infrastructure. The new ministry is currently reviewing how the *EBR* should apply to its work.

Oak Ridges Moraine Conservation Act, 2001* (ORMCA) and the *Greenbelt Act, 2005

Ministry of Municipal Affairs and Housing:

Both these Acts have been prescribed under the *EBR* with the filing of O. Reg. 216/07 and O. Reg. 217/07. Before the *ORMCA* was prescribed, MMAH upheld the spirit and intent of the *EBR* by voluntarily posting information notices to invite public comment regarding the conformity amendments. In total, approximately 54 notices were posted.

Statements of Environmental Values

Ministry of the Environment:

MOE is committed to, and working with, other *EBR* ministries to finalize new SEVs. A decision notice will be posted on the Environmental Registry. MOE actions include posting draft SEVs in 2007 for the Ministries of Government Services, and Agriculture, Food and Rural Affairs, and preparing training materials for new SEV implementation.

Part 7: Appeals, Lawsuits, Whistleblowers

(No comments from Ministries)

Part 8: Developing Issues

Roads-Pathways for Humans, Barriers for Functioning Ecosystems

Ministry of Transportation:

The Ministry of Transportation is committed to the development and maintenance of an integrated sustainable transportation system that supports the needs of today while protecting our natural environment for the future. We work to implement energy efficiency, sound resource management, pollution control and greenhouse gas emission reduction strategies, while improving access and transportation choices for travelers.

Other jurisdictions look to Ontario's leadership in respecting the natural environment as a key aspect of implementing our projects. The ministry works collaboratively with our partners and stakeholders to conduct our work in an environmentally responsible manner. In addition, we work together to develop new approaches to protect the environment such as innovations for recycling pavement materials and salt management practices. MTO is developing a systematic framework for greener roads - making sustainability an integral part of infrastructure planning, design, construction and maintenance on highway projects throughout the province.

Wildlife Management: Ontario's Mammalian Predators

Ministry of Natural Resources:

Predator species are important components of Ontario's natural ecosystems and heritage. Their presence, particularly large terrestrial carnivores such as bears, wolves and wolverines, indicates a healthy ecosystem capable of providing their habitat requirements (food, water, cover and space) and of supporting many other plants, animals and other life forms.

The ministry is committed to the conservation of biodiversity, as well as the use of natural resources in a sustainable manner, while providing for social and economic benefits for all Ontarians. The ministry has been moving towards a more landscape and ecologically based approach to resource management over the last number of years. A number of species-specific or species group ecological frameworks have/are being developed that consider the broader spatial and temporal ecological trends on the landscape (e.g., biodiversity, climate change, habitat, disease, etc.) and will contribute to the conservation of species and their habitat.

The restoration of mammalian predators, considered to be species at risk under the new *Endangered Species Act*, which may have adapted and evolved in Ontario's ecosystems, will be a challenge addressed in the recovery planning process. In the case of Eastern cougars, there is much debate about their status. In response to potential cougar sightings the ministry has established a coordinated approach to compile, assess and follow-up on all credible reports.

Wildlife management must balance biological and ecological factors with social, cultural and economic considerations to provide benefits that include recreation in the form of hunting and viewing, subsistence hunting, economic gains through commercial activities like trapping and tourism, and overall contributions to biodiversity. Harvesting is regulated to ensure the long-term conservation of wildlife. While research supports that harvesting does not reduce the ecological fitness and functioning of predators, the ministry has a number of studies underway to improve our understanding of the ecology of protected and harvested predator populations.

Photo credits : Ministry of Natural Resources, p. 197, 202, 205
Andrew Nesbitt

Acts, Federal

Canadian Environmental Assessment Act, 36, 107, 162, 219;
Fisheries Act, 107
Species at Risk Act, 107

Acts, Provincial

Aggregate Resources Act, 173;
Brownfield Statute Law Amendment Act, 112;
Budget Measures and Interim Appropriation Act, 111-115, 153;
Clean Water Act, 26, 55, 56, 137, 140, 163, 166, 168, 213, 215;
Conservation Land Act, 83;
Crown Forest Sustainability Act, 31, 178;
Endangered Species Act, 75, 80, 168, 216, 220;
Energy Conservation Leadership Act, 25, 65, 66, 168;
Environmental Assessment Act, 28-48, 157, 159, 162, 178, 215;
Environmental Bill of Rights, (see entry below);
Environmental Protection Act, 15, 23, 37, 45, 65, 98, 112, 115, 119, 122, 129, 142, 174, 188, 217, 218;
Escheats Act, 113;
Greenbelt Act, 27, 139, 163, 166, 169, 216, 220;
Mining Act, 113, 147-9, 177, 219;
Nutrient Management Act, 24, 174;
Oak Ridges Moraine Conservation Act, 141, 163, 166, 169, 220;
Ontario Heritage Act, 165, 169, 171, 220;
Ontario Water Resources Act, 37, 53, 94, 96, 97, 98, 99, 103, 104, 105, 111, 135;
Places to Grow Act, 27, 137, 138, 139, 141, 167, 170, 216
Planning Act, 35, 157, 186, 215, 219;
Proceedings Against the Crown Act, 113;
Provincial Parks Act, 68;
Provincial Parks and Conservation Reserves Act, 68-73, 75, 79, 80, 147, 148, 216;
Public Lands Act, 149, 178;
Regulatory Modernization Act, 128-131, 153, 218;
Safe Drinking Water Act, 90;
Safeguarding and Sustaining Ontario's Water Act, 135, 215, 219;
Sustainable Water and Sewage Systems Act, 90, 93;
Waste Diversion Act, 121, 218;

Aggregates (pits and quarries) (see Land Use)

Air

air pollution, 57-62, 88, 115, 142-146;
air quality, 22, 26, 27, 57-62, 112, 115, 118, 142-146, 180, 188, 210, 216;
Air Quality Health Index, 59-60, 216
Air Quality Index, 57-62, 216;
ArcelorMittal Dofasco meltshop, 142-145;
ban on burning used oil, 118-120;
black sooty fallouts, 146;
Certificates of Approval, 40, 60, 142;
cumulative effects assessment, 59, 60, 142-145, 180, 181, 188, 219;
Lafarge Canada Inc., 188;
landfill gas/methane control, 23, 214;
Odour Policy Framework, 115-118, 218;
odour standards, 117;
ozone (ground-level), 58, 60, 216;
particulate matter, 58, 59, 60, 143, 145, 216;
PM2.5, 58, 59, 216;
smog, 16, 17, 22, 57, 58, 60, 62;
tire incineration, 188, 189;
wind patterns, 116;

Appeals

and EA, 42;
Lafarge, 188;
on MMAH instruments, 184, 186
on MOE instruments, 184, 185
PTTW at Big Creek Wetland, 186
rights under the *EBR*, 161, 162, 165, 166, 184-189

Biodiversity,

22, 27, 76-82, 88, 178, 192, 193, 198, 199, 201, 203, 204, 210, 214, 215, 216-7, 220;
(also see Wildlife, Endangered Species)
conservation, 22, 79, 81, 192, 199, 200, 201, 220;
ecological integrity, 68-73, 79, 125, 195, 216-217;
invasive species, 75, 81, 88, 89, 192, 195, 217;
natural heritage, 71, 83, 85, 127, 140, 141, 171, 173, 175, 196, 219;

Brownfields,

111-115, 153, 218
(also see Land Use)
Environmental Site Assessment, 113;
liability, 113;
regulatory framework, 113;
Record Of Site Condition (RSC), 112;

Class EAs

and Environmental Review Tribunal, 35
and mining, 39;
codes of practice, 36, 37;
Duffin Creek sewage treatment plant, 45;
for Provincial Transportation Facilities, 126
Municipal Class EA, 42, 43;
Oakville Transmission Line (1994), 31
piece-meal decision making, 41;
process, 30, 33, 41, 42, 43, 45, 46, 214, 215;
Timber Management Class EA, 30, 32;
transportation, 35, 126;
York Durham Sewer System expansion, 31,

Climate Change,

13-28, 49-50, 55, 57, 75, 76, 77, 88, 89, 154, 198, 213-4, 215, 216, 219, 220;
(also see Air; Energy)
Adaptation, 13, 14, 22, 26, 198, 213, 214;
carbon trading system, 20-1, 22-3, 28;
coal phase-out, 15-7, 25, 27, 213;
Expert Panel On Adaptation, 26;
Go Green: Ontario's Action Plan on Climate Change, 13-28, 154, 179, 123-4, 219;
Mitigation, 13, 22;
MoveOntario 2020, 17-8, 27, 214;
precautionary principle, 26;
tree planting, 22, 27, 214;

Endangered Species,

171, 201, 202, 214, 216;
(also see Biodiversity; Wildlife)
Endangered Species Act, 75, 80, 168, 216, 220;
Species at Risk Act, 107;

Energy
coal phase-out, **15-7, 25, 27, 213**;
conservation, **15, 17, 20, 25, 64, 65, 66, 213**;
ethanol, **18, 25**;
Integrated Power System Plan (IPSP), **213**;
Ontario Power Authority, **15, 38, 214**;
Portlands Energy Centre, **60**;
renewable energy, **14, 16, 19, 20, 24, 25, 63, 64, 66, 75, 213, 214, 216.**
Renewable Energy Standard Offer Program, **19, 213, 214**;
transmission lines, **16, 29, 34**;

Environmental Assessment (also see Class EAs), **28-48**
consultation, **30, 33, 36, 38, 40, 41, 42, 43, 46, 47, 48, 214**;
enforcement, **38, 46, 47, 48**;
Environmental Assessment Act, **28-48, 157, 159, 162, 178, 215**;
Inco Limited, **190**;

Environmental Bill of Rights
(also see Appeals; *Environmental Commissioner of Ontario*, Environmental Registry)
Clean Water Act, making subject to *EBR*, **166**
keeping the *EBR* in sync with new laws, **165-7**;
ministries prescribed under the *EBR*, **9-10; 87, 129, 130, 133, 138, 141, 152-163, 165-171, 172, 181-182, 220**;
Ministry of Public Infrastructure Renewal, making subject to *EBR*, **167**;
Ministry of Transportation, making subject to *EBR*, **166**;
Ontario Heritage Act, making subject to *EBR*: **165**;
Places to Grow Act, making regulation proposal notices and applications subject to *EBR*, **167**;
public nuisance cases, **190**;
right to sue, **190**;
rights under the *EBR* , **7, 184-90**;
role of the ECO, **7, 14**;
source protection plans, making subject to EBR, **166**;
statements of environmental values, **7, 65, 82, 165, 172, 187, 188, 189, 219, 220**;
whistleblower protection, **184, 190**;

Environmental Commissioner of Ontario
(also see Appeals; *Environmental Bill of Rights*; Environmental Registry)
Annual Report to Legislature, **7-8, 11**;
Doing Less with Less special report, **74-76, 102, 216**;
Information Officer, **11**;
Recognition Award, **10**;
website, **11**
Message from Commissioner, **4-6**;

Environmental Registry,
9, 11, 37, 82, 87, 152-163, 166, 170, 171, 181, 182, 185, 217, 219
(also see Environmental Bill of Rights)
comment periods, **9, 103, 116, 123, 153-4, 162, 172, 179**;
decision notices, **87, 96, 103, 105, 106, 124, 127, 155, 156-8, 159, 160, 162-3, 172, 184, 186, 219, 220**;
exception notices, **161-2, 219**;
information notices, **129, 153, 154, 157, 158, 159-161, 167, 168, 170, 214, 219, 220**;
late decision notices, **162-3, 219**;
proposal notices, **87, 105, 113, 128, 137, 153-163**;
quality of information, **152-5**;
undecided proposals, **160, 162-3, 219**;
unposted decisions, **156-8, 219**;

Fish (see Wildlife)

Forestry (see Land Use)

Great Lakes (see Water)

Land use
(also see Southern Ontario Land Use; Northern Ontario Land Use)
land conservation, **23, 27, 82, 82-85, 214**
conservation authorities, **26, 49, 51, 52, 53, 54, 56, 83, 84, 95, 97, 106, 113, 138, 196, 217**;
conservation reserves, **68-73, 75, 216**
Conservation Land Act, **83**;
Crown Forest Sustainability Act, **31, 178**;
ecological footprint, **160, 192**;
Ecological Land Acquisition Program, **82, 84, 85**;
flood management, **22, 27, 51, 195.**
hunting, **68, 72, 75, 186-8, 198, 199, 200, 202, 203, 204, 220**
land acquisition, **27, 82-85, 217**;
landfill (Halton site), **31**
landfill (Sutcliffe decision) **33, 44**;
Living Legacy strategy, **31, 79**;
natural heritage, **71, 83, 85, 127, 140, 141, 171, 173, 175, 196, 219**;
Natural Spaces Land Acquisition and Stewardship Program, **82, 84, 171**;
Nutrient Management Act, **24, 174**;
Planning Act, **35, 157, 186, 215, 219**;
prescribed burns, **178**;
Provincial Parks and Conservation Reserves Act, **68-73, 75, 79, 80, 147, 148, 216**;
septage, **174-5**;
sewage, **43, 45, 74, 99, 116, 162, 174**;
wetlands, **23, 57, 76, 80, 83, 127, 171, 175-6, 184, 185, 186-7, 195, 196, 219**;

Mining and Mineral Development
(see Northern Ontario Land Use)

Ministries Individual
Agriculture Food and Rural Affairs OMAFRA, **9, 106, 116, 133, 172, 174, 185, 214**;
Culture MCL, **9, 85, 169, 171, 220**;
Economic Development and Trade MEDT, **9**;
Education EDU, **67, 163**;
Energy ENG, **9, 10, 133, 159**;
Environment MOE, **9, 13, 18, 23, 26, 28-48, 53-56, 57-62, 64, 65, 74-6, 87-9, 90-4, 94-7, 98-102, 103-6, 106-11, 112-5, 115-8, 118-20, 121-4, 130, 131, 133, 134-8, 138-141, 142-6, 150, 153, 155, 156, 157-8, 159-61, 161-2, 163, 166, 168-9. 170-1, 172, 174, 179, 180, 181, 182, 184-90, 213-20**;
Ministry of Government and Consumer Services MGCS, **9, 63, 133, 172, 216**;
Health and Long Term Care MOHLTC, **9, 159, 169**;
Labour MOL, **128-30**;
Municipal Affairs and Housing MMAH, **9, 133, 138-41, 150, 159, 166, 169, 175, 179, 184, 185, 186, 214, 215, 219, 220.**
Natural Resources MNR, **9, 11, 13, 14, 26, 30, 39, 49-56, 68-73, 74-76, 75-82, 82-85, 106-111, 125, 130, 131, 133, 138-141, 147-9, 150, 153, 156-7, 159, 160, 163, 168, 171, 173, 175-9, 181-2, 186, 187, 196, 197, 198-205, 214-9**;
Northern Development and Mines MNDM, **9, 39, 133, 147-9, 159, 163, 177**;

Public Infrastructure Renewal PIR, **10, 63, 67, 138, 141, 159, 160, 167, 170**;
Technical Standards and Safety Authority TSSA, **133**;
Tourism TOUR, **10**;
Transportation MTO, **10, 106-11, 124-8, 159, 166, 170, 176, 179-80, 195-6, 214, 215, 217, 218, 220**

Northern Ontario Land Use
Algonquin Park, **69, 160, 193**;
ban on burning used oil, **119-20**;
boreal forest **39, 49, 75, 149, 177-78, 197, 213, 214, 215**;
First Nations (Moose Deer Point), **71-72**;
Lady-Evelyn Smoothwater Provincial Park **70, 216**;
mine rehabilitation, **113**;
Mining Act, **113, 147-49, 177, 219**;
mining and mineral development **39, 71, 79, 95, 99, 113, 147-49, 177, 197, 219**;
natural heritage, **127, 140-41, 171, 173, 175**
Natural Spaces Land Acquisition and Stewardship Program, **82, 84, 171**
Northern Boreal Initiative, **75, 178**
Ontario's Living Legacy strategy, **31, 79**;
prescribed burns, **178**
Victor Diamond Mine, **162**
Whitefeather Forest, **39, 178, 215**;
Woodland Caribou Provincial Park, **70**;

Parks and Protected Areas
(see Land Use; Wildlife; Biodiversity; Endangered Species)

Planning
City of Guelph,**137-140**
First Nations (Moose Deer Point), **71-72**;
Grand River watershed, **49, 138-39**;
Great Lakes watershed, **49, 81, 87-89, 147-49, 194, 216, 217**;
Greater Golden Horseshoe, **137, 139, 141, 160, 216**;
Greenbelt Act, **27, 139, 163, 166, 169, 216, 220**;
Greenbelt Plan, **140, 215, 219**;
Natural Spaces Land Acquisition and Stewardship Program (NSLASP), **82-84, 171**;
Northern Boreal Initiative, **75, 178**;
Oak Ridges Moraine Conservation Act (ORMCA), **141, 163, 166, 169, 220**;
Odour Policy Framework, **115-19, 218**;
Ontario Low Water Response, **26, 51-56, 136, 210, 215**;
Ontario Municipal Board, **185**;
Places to Grow Act, **27, 137-39, 141, 167, 170, 216**;
Planning Act, **35, 157, 186, 215**;
population growth, **123, 137, 140, 192**;
Provincial Parks Act, **68**;
Provincial Parks and Conservation Reserves Act, **68-73, 75, 79-80, 147-48, 216**;
Provincial Policy Statement, **127, 140, 175, 185, 219**;
provincially significant wetlands, **127, 175**;
Public Lands Act, **149, 178**;
sustainable development, **10, 22-23, 56, 63, 65, 73, 87-88, 90-93, 110, 136, 141, 179, 199, 203-04, 213, 219, 220**;
transmission lines, **16, 29, 31, 34**;
Whitefeather Forest, **39, 178, 215**;

Recycling
(see Waste Management)

Statement of Environmental Values,
7, 8, 65, 82, 163, 165, 172, 220;
environmental assessment, **158**;
Ministry of Agriculture, Food and Rural Affairs, **172**;
Ministry of the Environment, **134, 172**;
Ministry of Government and Consumer Services, **172**;
precautionary principle, **187, 188, 190, 204-05**;

Southern Ontario Land Use
Aggregate Resources Act, **173**;
aggregates, **74, 139-40, 173**;
brownfield reform, **111-114, 153, 218**;
City of Guelph, **137-38, 138-40**;
contaminated land, **125-26, 216, 218**;
Greater Toronto Area, **17, 27, 49, 85, 108, 179, 215, 216**;
landfill (Halton region), **32**
natural heritage, **71, 83, 85, 127, 140-41, 171, 173, 175, 196, 219**;
Natural Spaces Land Acquisition and Stewardship Program, **82-84, 171**;
Provincial Policy Statement, **127, 140, 175-76, 185, 219**;
provincially significant wetlands, **127, 175**;
rapid transit, **14, 17, 214**;

Transportation
ecological footprint, **26, 62, 66-67, 160, 216**;
environmental impacts of roads, **124-28, 192-97, 218, 220**;
erosion and sediment control, **107, 109, 125-27, 192**;
gene flow, **193-94**;
habitat fragmentation, **192, 193-94, 218, 220**;
Highway 69, **196**;
highway expansion, **30, 106, 110, 124-28, 175, 220**;
highway planning, design, construction, operation and maintenance, **106, 124-28, 180, 218, 220**;
MoveOntario2020, **17-18, 27, 214**;
MTO Environmental Standards Project, **106-111, 124-28, 218, 220**;
Muskoka Lakes, **108-110**;
Oak Ridges Moraine, **124, 125, 195-96, 218**;
rapid transit, **14, 17, 214**;
road avoidance, **193-94**;
road ecology, **192-97**;
road mortality / roadkill, **193-96**;
road salts, **125, 179-80, 193, 195, 220**;
sustainable transportation, **179**;
Toronto Zoo road ecology group, **196**;
Vancouver Inland Highway, **196, 197**;

Waste Management
biosolids, **174-75**
burning used oil, **119-20**;
Lafarge Canada Inc., **186-90**;
landfill (Halton region), **32**;
Landfill (Sutcliffe decision), **34**;
landfill gas, **23-24, 213, 214**;
landfill sites, **10, 23-24, 29-30, 32, 34, 40, 124, 213, 214**;
Municipal Hazardous or Special Waste Program Plan, **121-24, 216**;
municipal wastewater management, **41, 90-94, 217**;
septage, **174-75**;
sewage, **44, 45, 74, 90, 93, 99, 162, 174-75**;
tire incineration, **186-89**;
Waste Diversion Act, **121, 218**;

Water

aquifer, **42, 54, 103-06, 134, 137, 140**;
City of Guelph water supply planning, **137-38, 138-40**;
conservation, **52, 92, 94, 96, 97, 175, 186, 188, 215, 217, 218, 219**;
cumulative effects assessment, **42, 59-60, 181, 187, 189**;
drainage, **125-26**;
drinking water, **53, 88, 90-94, 103-06, 134-38, 138-41, 159, 163, 169, 213, 217, 219**;
drinking water source protection see Water, source water protection;
drought, **49-57, 136-37, 138, 195, 211, 215**;
Ecological Framework for Recreational Fisheries Management, **75, 216, 217**;
Fisheries Protocols, **106-111, 125, 211, 217, 218**;
flood management, **22, 27, 51, 195**;
Great Lakes, **49, 81, 87-89, 147-49, 194, 216, 217**;
groundwater and wells, **49-56, 103-06, 137-38, 138-41, 215, 217, 219**;
hydrology, **49-56, 195**;
municipal wastewater management, **41, 90-94, 217**;
Muskoka Lakes, **108-110**;
Ontario Drinking Water Advisory Council, **103**;
Ontario Water Resources Act, **135**;
Permit To Take Water , **53, 55, 56, 134-37, 137-38, 162, 184, 186-87, 211, 215, 218-19**;
provincial groundwater strategy, **103-06**;
Regulation 903, R.R.O. 1990 (Wells), **103-6**
Safe Drinking Water Act, **90**
Safeguarding and Sustaining Ontario's Water Act **135, 215, 219**
source water protection, **56, 103, 166, 173**;
Sustainable Water and Sewage Systems Act, **90, 93**;
Walkerton Commission of Inquiry, **90, 103-06, 169**;
wells / water wells, **74, 103-06, 140, 217**;
wetlands, **23, 57, 83, 127, 171, 175, 194, 195, 196, 219**;

Wildlife

barriers to wildlife movement, **192-97, 211, 220**;
black bears, **200, 203**;
boreal forest, **39, 49, 149, 177-78, 197, 214, 215**;
buffer zones, **71, 156**;
cougars, **70, 196, 198, 200, 201-02, 220**;
coyotes, **193, 196, 199, 200, 202-03**;
Ecological Framework for Recreational Fisheries Management, **75, 216, 217**;
fish habitat, **55, 106-111, 125, 137, 211, 216, 217**;
Fisheries Protocols, **106-111, 125, 211, 217, 218**;
gene flow, **193-94**;
habitat fragmentation, **192, 193-94, 218, 220**;
habitat protection, **23, 27, 82, 84, 106-111, 125, 149, 171, 192-97, 198-99, 203, 211, 214, 216, 217, 218-19**;
hunting, **68, 72, 186-88, 199, 200, 202, 203, 220**;
invasive species, **75, 77, 81, 88, 89, 192, 195, 217**;
keystone species, **194, 203**;
mammalian predators, **198-205, 211, 220**;
management, **74-76**;
Oak Ridges Moraine, **124, 125, 171, 195, 196, 218**;
Provincial Parks Act, **68**;
Provincial Parks and Conservation Reserves Act, **68-73, 75, 79-80, 147-48, 216**;
sustainable yield, **199**;
top predator populations, **193, 198-205**;
Toronto Zoo road ecology group, **196**;
wolves, **71, 80, 193, 198, 199, 201, 204, 220**;
woodland caribou, **76, 80, 194**

ECO Staff List 2007/2008

Bev Dottin
Information Officer

Dennis Draper
Senior Policy Advisor

Hayley Easto
Communications & Outreach Coordinator

Emma Followes
Policy & Decision Analyst

Carrie Hackett
Resource Centre Librarian

Greg Jenish
Policy & Decision Analyst

Michelle Kassel
Policy & Decision Analyst

Peter Lapp
Executive Assistant

Jo-Anne MacKinnon
Office Administrator

Dania Majid
Policy & Decision Analyst

David McRobert
In-House Counsel/Sr. Policy Advisor

Cynthia Robinson
Office Administrator

Nadine Sawh
Case Management Assistant

Ellen Schwartzel
Senior Manager – Policy Analysis

Yazmin Schroff
Information Officer

Tyler Schulz
Policy & Decision Analyst

Carolyn Shaw
Policy & Decision Analyst

Lisa Shultz
Policy & Decision Analyst

Chris Wilkinson
Policy & Decision Analyst

Environmental Commissioner of Ontario
1075 Bay Street, Suite 605
Toronto, Ontario, Canada M5S 2B1
Telephone: 416-325-3377
Fax: 416-325-3370
Toll Free: 1-800-701-6454

www.eco.on.ca

Disponible en français
ISSN 1205-6298

This Annual Report is printed on Canadian-made Rolland Enviro100 paper manufactured from 100% post-consumer waste fibre, is Process Chlorine Free (PCF) and used BioGas in its production (an alternative "green energy" source produced from decomposing waste collected from landfill sites) to reduce greenhouse gas emissions and the depletion of the ozone layer.

Rolland Enviro100 saves the harvesting of mature trees, reduces solid waste that would have gone into landfill sites, uses 80% less water than conventional paper manufacturing and helps reduce air and water pollution

Certified
Processed Chlorine Free
100% Post-Consumer Waste Fibre
Recyclable Where facilities Exist
Green Energy Source
100%
From well-managed forests
www.fsc.org Cert no. SW-COC-002080
© 1996 Forest Stewardship Council